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WORK FOR AUGUST.

In taking up our pen to hold our monthly talk with our agricultural brethren, it is with feelings of unalloyed pleasure that we can congratulate them that, through the goodness of Providence, notwithstanding the long continued and severe drought of the season, the small grain crops have far exceeded the early formed expectations of their products. The wheat, though it suffered sorely by winter-killing, measurably from our ancient enemy, the *Hessian fly*, was exempted as far as our knowledge goes, from rust and smut, and though it stood thinly on the ground, it headed finely, and has, perhaps, yielded the best kernel that has been grown for many years, and will, therefore, make up in *quality* for much of what it may have lost in *quantity*. While we are touching upon the deleterious effects of winter killing, it may be opportune to the occasion to remark, that the best remedy for this evil would be, to seize the first opportunity in early spring when the frost may be out of the ground, and it dry enough to admit of the operation, to harrow the field with a *light harrow*, which should be followed with a *roller*. This would operate in a two-fold way. It would serve as a working to the wheat plants, bring the joints of the standing plants in close contact with the earth, and thus encourage and secure its natural propensity and capacity for tillering, thereby enabling them to fill up much of the ground which had been laid bare by the uplifting operation of the frosts and thaws of winter.

The *Rye crop*, as far as we can learn, compared with the products of former years, is unusually good.

The *Oats-crop*, will, we think, prove to have been a short one, the straw is unusually short, though the heading out of all that have come under our observation appeared to be satisfactory.

The *Hay crops*, as far as we have received information, have proved very deficient. Those, therefore, who have raised any for market, may anticipate good prices. To those who may have been disappointed in growing a sufficiency for their stock, we would say, that they should bestir themselves in putting in

a few acres of broadcast corn, or millet. In each of these they have a resource, if speedily resorted to, and they should manure the ground heavily, to give a start to, and sustain vegetation.

The *Barley crop*, from the nature of our information, we are disposed to think will have turned out an average one.

The *Tobacco crop* it is difficult to speak of throughout the country. So far as Maryland is concerned, the quantity raised, compared with that of former years, will doubtless prove to have been greatly reduced, as we learn much less ground was appropriated to it than in former years. If the planters of this weed in other States have been equally wise, and profited by experience, the supposition would be a fair one, that the aggregate product would be less than that of last year. Of this, however, we have not the data at hand to enable us to speak advisedly, but will add, that whenever supply exceeds the demand for any article, it is the part of wisdom for the producers to reduce the size of their fields, so as to ensure a remunerating price for their commodity. If two hogsheads of tobacco be raised to supply the demand of where one is only required, the consequence will inevitably be, that the grower has to submit to a depression of price greatly below its true value, as speculators are always keen sighted and have no feeling beyond their own pockets. We say this in no unkind spirit, as we look upon such results as naturally flowing from the operations of trade, the tendencies of *traffic* being, to whet men's appetites for profit, and to beget the feeling of exclusiveness.

As to prices in the future, we would be permitted to be indulged with a few remarks. The sudden depression in the value of grain brought about within the last two months, without any strikingly apparent cause, would seem to unsettle, if not defy all calculations for the future. All of a sudden, with the famine still stalking through Ireland and the Highlands of Scotland, with *scarcity* yet pressing the people of France and many of the German States, the prices of produce have fallen some fifty per cent.

For this depression three causes may be said to have operated conjointly, and each to have exerted its respective influences. 1. The good prospects of fruitful crops in Europe. 2. The unlocking of the navigation of the canals and lakes leading to the far west of our own fruitful land—and 3. The mining and counter-mining of speculators. The latter cause, perhaps, operated more than either of the others, as starving men and women could not wait for the growing crops, nor be subsisted upon *prospects* however fair to present sight or flattering in the prospective.

Notwithstanding the present depression, we are induced to believe the crop of 1847 will bring fair remunerating prices: we believe also that the present market opened in England and Ireland for corn, will continue and increase in demand, until it becomes the great food used there for the fattening of beef and pork. We believe this, because we do know that neither England, Ireland nor Scotland, can raise any grain or other product that can compare with it in its fat producing properties. In this respect corn is without its peer.

Indulging in the hope that plenty may abound throughout our land—that health, prosperity, and happiness may bless each hearth, and thankfulness fill every heart, we shall call attention to such matters as require attention

ON THE FARM.

Timothy Meadows.—All Timothy meadows which are sod-bound should be well harrowed and rolled. If the product of hay manifested a falling off in the fertility of the soil, it would be well to top-dress.—A good compost for this could be formed thus: To each acre take 2 loads of mould from the woods, mix with 5 bushels of ashes and the same quantity of lime and spread it over the meadow before the operation of harrowing and rolling shall have been performed. This may be considered a small dressing,—it is large enough, however, to effectively tell in next year's crop of grass.

Sowing Timothy Seed.—If you have a field that you design to set in a timothy meadow, plough it at once, as the sooner you get your seed in the better chance will the plants have to stand the winter, and the greater assurance will you have for a good crop of hay next year.

If your soil is not already fertile, make it so by liberally manuring it. Recollect that timothy, with care, will last from 5 to 7 years, and that to stand the taking off of so many successive crops of grass the soil requires to be in good heart.

In breaking it up, be sure to plough deep and turn the furrows flat. As ploughed, let it be thoroughly harrowed, first in the direction of the furrows and then cross-wise. Continue the harrowing until the tilth is perfectly fine. Should the clods be impracticable, use the roller between the harrowings, so as to ensure certainty to your labor. Bear in mind that no man should be content to set his meadow without

breaking all the clods, as every thing which is worthy of being done should be well done, and work of such permanent nature as that of a timothy meadow especially requires to be so done,—*first*, because if all the lumps be not reduced much of the seed will be lost, and *secondly*, because such preparation of the soil renders the cutting of the grass comparatively easy.

In sowing the seed, be sure to employ a careful and experienced hand, in order that the seed may be evenly distributed. The seed should be harrowed in with a *very light harrow*. That done roll the ground with a heavy roller, so as to bring the seed immediately in contact with the earth and thus produce early germination.

With regard to the *quantity of seed per acre*, we would remark, that 1 peck is the usual quantity sown, but that in our opinion 1½ peck would be the preferable quantity.

We have known excellent success to attend the sowing of Timothy seed in Corn fields at the time of the last working. Where this is done the field must be so worked as to be *comparatively level*.

Extirpation of Bushes, Briars, Sprouts, Shrubs and Weeds.—This is the month for all such work—so if any of your fields, fence corners or sides are thus infested, go to work lustily, and cut up the intruders.

Turnips.—If you have not already sown your turnip seed do so the first week in this month. For particulars we refer you to our last month's remarks upon turnip culture. You will there find every thing essential to be known. Follow the advice therein given and success must attend your exertions.

Potatoes.—If you have not already given your fall potatoes their last working do so as speedily as they may need it, taking care to leave the hill flat at top. As a preventive against the ills of disease, sow on them a mixture composed of 1 bushel lime, 1 bushel salt and 1 bushel ashes to the acre. We do not say that this will prove a panacea, but we will say that this will prove of benefit. Sow this mixture early in the morning when the dew is on the vines.

Sheep.—Renew the *tar and salt* in your sheep pasture once a week during this month and your sheep will be exempt from the fly in the head. The trough in which the tar and salt is placed should be protected from the weather, but accessible to the sheep at all times.

Fallowing for Fall crops.—All the ground you may intend for fall crops should be forthwith ploughed; the utmost care being taken to plough it deeply and without balks. Whether you shall be ready to sow when finished or not, harrow it, as soil intended for small grain cannot well be of too fine tilth.

Sowing Rye.—This work should be done this month, as it is important to have the plants in a flourishing condition before the frost sets in. In most of the fields usually given to Rye, it would be well to sow 10 bushels of lime and 10 bushels of ashes at the time of sowing, as the soils usually selected for this crop stand sadly in want of both.

Quantity of seed per acre.—From 4 to 5 pecks is about the right quantity.

Time of sowing wheat.—As we have frequently remarked, the sowing of wheat in former years was too long delayed, we will, therefore, seize this early occasion to remind our readers that they should make their arrangements to commence sowing about the 15th of September, so that they may have time to finish early in October. The *Mediterranean* they should sow first, as it is so near fly-proof that it is difficult to tell the difference.

Guano for Wheat.—To those who desire to use guano on their next year's crop of wheat, we would remark that we think the best way to use it is to plough it in when they break up their wheat lands. Our reason for this course will be found in a separate article in this month's journal.

Cleaning the Granaries.—Before any grain is put in your granaries, have them thoroughly cleansed by first washing them with strong *ley*, sides, sealings and floors, and then by whitewashing the sides and sealings. By pursuing this course you may possibly avoid the weevil.

Thrashing Grain.—It may be the safest course to get your grain thrashed and put away in your granary out of the way of rats, &c. Before however, thus storing it away sprinkle newly slaked lime over your floor, and be sure to stop up all holes that would admit either rats or mice.

Draining and Ditching.—This is perhaps the best month in the year for such work. If you have any fields of wet clay which are difficult of ploughing and culture, make a ditch around it, and run cross or lateral drains (covered) into it at different points, and you will change the very texture of the soil, increase its susceptibility to improvement, and add 33 per cent. to its productive capacity.

Clover and Stubble Fields.—Sow a bushel of Plaster on each acre of these. By so doing you will derive great benefit in your next year's crops.

Cow Yards, Barn Yards, Hog Pens.—Make it a point of duty to haul into these as much marsh mud or mould from the woods as will cover their respective surfaces 18 or 20 inches deep,—spread the substance into the form of a basin. Your stock in the course of the ensuing fall, winter and spring will convert it all into first quality manure. Try it once and we'll bet you a big apple that you do it every year thereafter for the balance of your life.

Milch Cows and 2 year old Heifers.—Have these now served, and if you have not a good bull of your own, procure the services of a Durham or Devon, of unmistakable blood; the issue of such bull will be worth infinitely more to you than if they had been sired by some old field scrub, whose only merit consists in being an apology for a lover for your cows and heifers. It is time that every neighborhood of a few miles had a thorough-bred bull of some sort, to bring up the lacking qualities of its stock cattle.

Buckwheat.—This may now be sown to turn under

as a green dressing. It should be in by the 10th of the month, and ploughed under when it first comes into blossom.

Care.—As the pastures are short, look to your fences and your cattle, lest the latter destroy in a single night the fruits of months of labor.

Late Corn.—If you have not yet laid this by, put your cultivators into it forthwith. Let each cultivator be followed by two hoemen to cut up the grass around the stalks. Let this working be thorough and cleansing. Examine for yourself, and see that between the cultivators and hoes, neither weed nor grass is left standing, and that your field of corn when laid by, is a pattern for your neighborhood. Pride of this kind is laudable, it gives character to the agriculturist, and wealth to him and the nation.

Orchard.—Should any of the trees show canker or too much gum, you should cut the decayed part clean to the sound wood, taking care to leave a smooth surface on the wound which must be covered with the following mixture: Take in the proportion of 1 pint of tar to 1 lb. of powdered chalk, or the same quantity of calcined plaster, mix the whole well together and paint the wounded part with it.

In conclusion, permit us to wish success to your labors and health to enjoy their fruits.

REPORT FROM COMMITTEE ON MANURES.

[To the Montgomery Co. (Md.) Agricultural Society.]

The committee are fully sensible of the delicate office they assume in discharging the duty assigned them, in determining the relative value and application of manures. The great variety of manures, or means used for the improvement of exhausted lands—their peculiar properties, and proper application to different soils, require a nicety in chemical analysis which your committee could not be supposed to possess, and which they acknowledge themselves wholly inadequate to perform. As to the time and modes of applying them, there is almost as great a diversity of opinion, as they differ in their properties; some contend they should always be ploughed in, that "manure never goes down—but if lost at all it is by evaporation." Others contend that "surface manuring is far preferable—that the valuable principles of manure cannot be carried off by the air, but are only in danger of being carried off by washing."

Your committee will not undertake to decide, having derived the most happy results from its application in both modes. They have found the greatest advantage to arise from an abundant supply. The great error heretofore in our system of farming, has been supposed to consist in the too little attention devoted to the accumulation of manures. Since the introduction of Guano, many contend that it is a useless expenditure of time and labor; and that they can hardly afford time to cleanse their stables, or purify their homesteads; and strange as it may appear, an examination of the analysis of Guano with other manures, and the decided proofs furnished not only of its immediate, but permanent effect would justify the declaration. If, as shewn by a statement furnished by the October No., 1846, of the Cultivator, that "a Ton of Guano produces from thirty to seventy times as great a growth in plants as an

equal quantity of barn yard manure, and as has been proven by the satisfactory letter of one of our members, Mr. Stabler, in which we all place the fullest reliance:—"That it is not only remunerating in the crops to which it is applied, but secures a sure foundation upon which you may rely, (in a luxuriant crop of Clover) for a permanent improvement of your land;" and this from land which cost but a few years previous but \$2 05 per acre, and which was probably as poor as any part of our county. Can any one hesitate a moment as to the proper means to be used in the restoration of our exhausted lands? It requires, comparatively, neither time nor labor, and incurs no risk. It appears adapted to all soils, and all crops; and I have yet to hear the first instance in which it has proved a failure. It may be said that we have not the means to purchase it—then as has been suggested, "sell a colt, a few head of cattle, of which you all have too many, or borrow the money." Recollect, there is no risk; you are certain to have its cost returned with interest, and a sure foundation established from the permanent improvement of your land. It is the assurance of a luxuriant crop of clover, after indemnifying its cost in the crop to which it was applied, that gives to Guano, in our estimation, its greatest value. Not to be mowed for Hay, and then for seed, and depastured afterwards, as long as a spire can be found; but to fall and re-fall upon the land; and this for two years, when we should find it in the condition of the rich prairies of the West, or, with what we are more familiar, our rich fence corners. Give me a thick set of Clover, with the use of Plaster for two years, and I have no fears for the crop of Wheat that will follow. Clover, like every other crop, may be made and exhausted, by removing its produce from the land. The great difficulty is, to resist the temptation to mow or depasture; but put up the fencing and lock the gate, and turn under in the proper season, and in a proper manner, the entire two years produce, in all stages, and the crop of wheat will repay you for all imaginary losses, and enhance the value of your land twofold. We have no hesitation in expressing our belief, that our friend, Mr. STABLER, would realize such a result.—The land that cost him \$2 05, would, by one course of the system advised, be worth \$5; and at the end of the second, \$10, with two crops, that would pay all expenses. We fully believe, and there are many who have contrasted the present condition of the land of the chairman of your committee with what it was when he came into possession of it, who will sustain him in the declaration, that it is capable of producing three times as much as it then would; and this desirable investment, or enhancement in value, has been almost solely produced by clover, plaster, and rest, as he terms it; or an interval of two, and sometimes three years, between two grain crops. We hazard the opinion that land will not permanently improve, that is manured every year, and cropped as often. You may get a good crop every year that the manure is applied; but discontinue its application, and it soon deteriorates. Our gardens produce abundantly every year, because they are abundantly supplied with the food of plants, and often at a cost that is rarely repaid; but discontinue its application, and we soon become sensible of its necessity. The beds in our gardens have been manured every year since we were a house-keeper, say 17; the walks which are in grass but once, when the garden was first laid out, and are mowed two or three times each year; yet cultivate the entire garden, beds and walks, in any field crop,

and the latter would be as distinctly defined by their extra luxuriance, as they now are by their meles and bounds.

Grass roots appear to possess the peculiar property of separating and lighting, which appear to be essential to the amelioration of the soil, which no implement that art has yet devised, can imitate. Turn over a sod of many years standing, and the earth attached appears perfectly disintegrated, or separated in all its particles; turn over a slice of similar land, bare of the grass roots, however rich it may be, and there is a compactness and adhesiveness in its particles which neither art nor labor can as perfectly separate or ameliorate. This garden system, or repetition of crops, may do very well where land is scarce, and labor abundant; but situated as we are, with a superabundance of poor land, and a sparse population, we must adopt a system of improvement more general in its application, though not so immediate in its results. We must make the land contribute to its own restoration, by first loaning it the means of establishing its restorer. We must, in fine, adopt a system that will pay us for our labor and expenditure, and insure us a liberal interest on our investment, in an enhanced value of the land. If our lands are only to yield when manured, and then not always in proportion to the cost of its application, there is no end to our labor, and the general face of our county must remain unchanged. We must adopt Nature's plan of sustaining her increased growth of plants, by self-sustenance—we must make the crop restore its exhaustion by the application of the offal, in the form of manure; or, we must give two crops and take one. This plan of rotation may do very well, when accompanied with manure; but as practised most generally with us, alternating with corn and oats, it has not only exhausted the essential pabulum of those particular plants, but every other principle of the soil. It is only wonderful that Hen, or Poverty grass, can find existence. If a piece of woodland is cut down, certainly two, and sometimes three crops of Tobacco are taken in succession, when we commence our rotation system of corn and oats, which soon makes a finish to every enriching principle (however abundant) the soil may have contained. Do not suppose that in recommending a system which we have pursued with the most evident and satisfactory results, that we would induce any to slacken their exertions in the accumulation or application of manure—it is essential in laying the foundation of the system, would accelerate its progress, and prove beneficial after maturity. There is always a place for it, and is never out of place when so placed. Upon our richest lands, we believe all crops would be increased in quantity and improved in quality by a proper application of manure. When crops succeed each other, as wheat after corn, it is all important, in accelerating its growth, preventing the too frequent occurrence of rust, and ensures a thick set of clover, all important to the improvement, or maintenance of the land. We have no doubt that an application of two hundred pounds of Guano to our corn fields, when sowed in wheat in the fall, would secure us an abundant crop as we derive from our most luxuriant clover fallows. They require something to stimulate or revive them from their lassitude, if we may so term it, of the preceding crop. Our lands, like our horses, become exhausted by over exertion, and require extra feed to enable them to withstand our extraordinary exacting; nor is extra feed, in our opinion, alone sufficient; but like the horse, it must have its intervals

of repose; it must have its night as well as its day, and repose a portion of its time, protected from the light and heat of the summer's sun, and the chilling blasts and frosts of winter. We have long since been convinced from a good deal of reading and reflection, and not a little experience, that nature is the farmer's best teacher; and, by following her example, we should avoid the perplexity and uncertainty of determining, among the various theories of her creatures, and avoid the necessity of resorting to the many artificial means of restoring her exhaustion. She leaves nothing uncovered, but adapts her dress to the peculiar seasons. As the horse is made to change his coat spring and fall, so the earth assumes her shade in summer, and her more compact covering of leaves and the prostration of grass and plants in winter. Rich land, we are convinced, may be made poor, and never produce a crop of anything, by being exposed, by frequent working, to the vicissitudes of the seasons. Those who may not be convinced of the importance of shelter or covering to land, may satisfy themselves of its benefit, by laying down a strip of plank; let it remain two years, and when removed, sowing the strip of land that had been covered by the plank, and an adjoining strip of the same dimensions, in any seed. What is it that enriches our fence rows, and makes their former location apparent for many years in every crop, when they become portions of the fields? It is the prostration and decay of vegetable matter, that has accumulated by spontaneous production, increasing in proportion to the duration of the fence, and manifesting its superiority in the same ratio. We were not aware, until a few years since, of the immense amount of vegetable matter incorporated in the soil, by the decay of roots of grass and other vegetation. By a careful examination, which we saw had been made, it was ascertained that the weight of roots of a grass ley, of a few years standing, far exceeded the most luxuriant surface crop; and when combined, as we recommend, would soon render our poor hills as productive as our alluvial soils. But it may be asked of what use will be our granaries, or in what manner shall our families be supported, if our lands remain idle and unproductive? Recollect that it is not their use, but abuse, that we wish to prevent. It is not their cultivation, but too frequent repetition, that we contend against. We are sure our friend Stabler would not say that he sustained a loss in permitting land to remain idle, which had repaid him for the cost of placing it in a state to improve, at the rate of fifty per cent. per annum; upon which, we suppose, he sowed, previous to placing it in this condition, at least five bushels of rye; and reaped two? A large portion of the lands in our county, if we are correctly informed, do not produce two barrels of corn per acre, which will not pay for the labor of cultivating it. We do not think it will be said that its proprietor would sustain any loss in placing it in the condition of the lands of Mr. Stabler, and renting from a neighbor, if one can be found, land which will produce five barrels, and giving the customary rent, one-third it produces. We have land that has not been in cultivation for five years, that has given no crop; and yet we believe that we have derived six per cent. interest upon our investment in the enhanced value of the land.

A great deal of the land of our county has given eight or ten per cent. interest; but the misfortune is, that the principal has been exhausted in the payment of interest. We are too eager and exorbitant in our exactions, not recollecting the fable of

the goose and the golden egg. We believe as there is no investment more safe, so there is none more productive than in land, when properly managed and judiciously cultivated. Indeed, instances are not rare in which they have doubled in value, and doubled the number of acres to their proprietor, in the time usually allowed for one increase in what have been considered more desirable investments. But they must first be put in a condition to produce such results, and they must be sustained in their exertions to furnish them; which mode is preferable, must rest with you to determine, whether by a repetition of crops and repeated applications of manure, or by making them contribute to their own sustenance by giving them two crops and taking one. By the first, we should have a few small lots around our homestead improved and productive, but much the larger portion of the farm must remain in its present impoverished condition, and the general face of our county preserving the same forbidding aspect. By adopting the second, we should have fewer acres in cultivation, but more corn in the crib; we should be induced to abandon a system which too generally prevails of over-cropping—find time to grub, ditch, and thoroughly plough and prepare our lands, and nurture and cultivate our crops, and derive from the one-half more than we now realize from the whole. Let, then, those who may be disposed to make the experiment, and recollect we warrant it success from practice and experience, commence with the corn crop, taking one-half the land that they have been usually in the habit of destroying. Employ one-half the labor that they have expended on the whole in draining, cleaning, and hauling out manure, that in many instances has been accumulating for the want of time to remove it. Plough the land deep, and thoroughly prepare it. In planting, use either plaster and ashes, poudrette, or guano—recollecting that these are outlays that are always repaid with interest. In cultivating the crop, plough four times instead of twice, which is once oftener than some practice—recollecting that you are thereby not only increasing the then crop, but are cleansing and preparing the land for those which are to follow. After the removal of the corn crop, haul out all the manure that you may have accumulated, and if you have not a sufficiency, buy guano, to the amount of two hundred pounds to the acre—apply it as has been directed by the able letter of Mr. Stabler, and sow in wheat. The following spring, sow at the rate of six acres to the bushel (and four would be better) in cloverseed. When the crop of wheat is harvested, sow on plaster, at the rate of a bushel to the acre; and lock the gate. The following two springs, sow a bushel of plaster to each acre; and at the proper season, say the month of August of the second year, put in your plough, with three strong, able horses, and break up the land—pulverize and prepare it properly, and sow and shovel in the wheat. The following spring it will not be necessary to sow cloverseed, there being a sufficiency in the land to insure an abundant set; plaster after the removing of the wheat, and again the two following years; and, in each, you may depasture moderately after the clover comes into bloom. This closes the first course, and occupies six years; and what has been the result? You have taken from the land three crops, the two first paying all expenses, and returning your outlay in manure with interest; the third, paying you a handsome interest upon your investment, and furnishing the means of enlarging the practice of your system of improvement; and what

is the condition of the land? A thick sward of blue grass—a sure indication of its improvement—furnishing, when growing, the best pasturage for every description of farm stock, and when broken up, in the decomposition of its multiplicity of roots, the best food for the corn crop, which commences the second course in the system recommended. The same rules must be observed in all subsequent courses, with a full confidence that all lost time, or contributions to the land, will be more than repaid in every successive grain crop.

Your committee have thus attempted a performance of the duties assigned them—not in an analysis of the great variety of manures in use, for which they acknowledge their incompetency: nor in reconciling the great variety of opinions entertained in regard to their operations, or modes of applying them; but in suggesting a system of improvement which, by their economical use in the first instance, the land itself may be made a contributor to its restoration, and made to maintain and increase its fertility thereafter.

JOHN P. C. PETER, Ch'n.

MEETING OF THE N. Y. FARMERS' CLUB.

HON. DIXON H. LEWIS ON THE AGRICULTURE OF THE SOUTH.

A regular meeting of the Club was held on Tuesday—Chairman, Col. CLARK, and the attendance of members fair, including Hon. DIXON H. LEWIS, ALEXANDER VATTIEMARE, Esq. and others.

HON. DIXON H. LEWIS was called upon for some observations on *Southern Agriculture*.—In answering the call, the honorable gentleman remarked that he had planted Corn for twenty years, his crop averaging fifty to seventy bushels per acre—though of late years it has been from thirty to forty-five—the reduction occurring, as he thought, in consequence of his overseer permitting shallow ploughing, running over the ground to the depth of not more than five inches, by which the land soon became, in a measure, exhausted. To remedy this, Mr. L. sent on to New York for Prouty's plows, which, when put in operation on his plantation, he stated, were driven into the ground with the full strength of three horses, sinking the instrument from nine to twelve and sixteen inches in the earth, so that the subsoil was cut up—an important point;—and in estimating the proportion of subsoil cut by these plows on his land, Mr. L. mentioned that twelve inches ploughed depth would generally admit of seven inches of fresh soil being cut effectually. His plantation consists of cane-land—black limestone—but the best soil he ever had was that thrown out from ditches.

In recurring, by request, to the question of plowing, Mr. Lewis said that by a long course of cultivation land becomes exhausted, and that, therefore, deep plowing is requisite to bring up the subsoil in order to afford to the growing plants the greatest possible amount of nutriment—Corn is much cultivated, and with so great facility that it rarely brings more than 50 cents per bushel—generally about 25 or 30; he would be very well content to raise nothing but corn at the medium price of 40 cents a bushel in crib, with a good market.

Cotton, Mr. L. did not consider so profitable a culture as Corn, unless the former commanded a uniform high price. The seed of Cotton weighs rather more than three-fourths of the plant, and every 1200 lbs. gives 360 of the picked cotton. Plowing affects Cotton in so much as this—that it drains the land, makes it warmer, and throws it into a good condition for

the Spring. He did not believe that soft land would do at all for Cotton—the tap-root of the plant running a great way into the ground [he had himself traced it two feet, and had been informed of greater depths,] it requires and makes an effort to find a tenaceous soil, (as clay,) to hold firmly—and if not succeeding, it rots off: therefore, he sets down very rich land as bad for Cotton.

In regard to the manuring of lands, Mr. L. had, he remarked, in a great measure adopted the theory of PETZOLDT, whose 'Lectures' he had read with great satisfaction. Petzholtz holds that certain insoluble salts are held by some plants and substances, which go toward the production of those plants, and that those excelling in quality or quantity also excel in the salts. Mr. L. believed, also, that, by means of a machine, the shell can be separated from the pulp of the cotton-seed, and that from the latter a good vegetable oil can be obtained with little trouble and of great usefulness—but then he wanted to be assured, before he made the experiment, that he would not thus be robbing the soil of what it needed. Hence the necessity of an analysis not only of the stalk, but of the boll, fibre, and seed of the Cotton Plant—an analysis which shall bring out such results as shall lessen the cost of manures, by lessening the bulk of the material required for the production of the plant. Petzholtz holds that the bulk of any article used as a fertilizer does not contain the principle of the growth of the plant; and that the process of incineration is the very best mode in which to get at the "sum and substance" of the matter.

Subsequently, the Club agreed on ordering a complete analysis, by the best chemists, of the Cotton plant, in accordance with the suggestion—if Mr. Lewis would do them the favor to send from his plantation a perfect specimen, including stalk, fibre, boll and seed.—For this purpose Mr. L. signified his cheerful readiness to comply with the request—and there will be attained, some time, a thorough knowledge of this plant so truly useful and almost indispensable—and the planters of the South can ascertain, to a certainty, whether or not it can be applied to a still greater number of purposes—and whether the extraction of an oil from it will be beneficial or prejudicial to the interests of the cultivator. Let us have a speedy and thorough analysis and report.

Salt.—A letter was received from Mr. COLT of Paterson, N. J. in which he says that having heard a great deal about Salt applied to Plum trees, he determined to try it, and told the gardener of his fruit-trees to give a handsome dressing of Salt to all his Plums (in which he did wrong, he says,) instead on a part only. Of course the man gave a fair covering for 3 or 4 feet diameter round all the Plum trees—but as Mr. C. is an economist, he bought his Salt from the refuse lots of packing-houses, and in it were contained much bone and a considerable quantity of saltpetre.—This dressing of Salt and Saltpetre killed for him 3 out of 4 of all his young trees—but the Plums that have heretofore always dropped their fruit show evident signs that they will mature a portion. This will be a great gain—and all, says Mr. Colt, that we have hereafter to do is to use Salt, and not Saltpetre.—N. Y. Tribune.

On Tuesday, this Society held another of its stated semi-monthly meetings. The attendance was quite limited. CHARLES HENRY HALL, Esq. Chairman, offered remarks on some Wool samples then lying on

the table, collected by L. Fleischmann, Esq. on his Agricultural Tour through Europe in 1845 and '46, for the United States Patent Office.

Mr. FLEISCHMANN followed in explanation of these samples and of the modes of treating Sheep in Europe. In Silesia, he stated, great care is taken of them. They are not exposed to rain; on the approach of bad weather they are immediately housed, and protected from its effects most sedulously. The rams and ewes are all separately numbered, and the lambs also are recorded and numbered—all these latter that are not of the first quality are sold, the choicest only being preserved, for the improvement of the stock. In feeding great care is taken, and with the greatest regularity, all the year round—some particular system, requiring much attention, being invariably followed on every estate. When housed, the temperature of the building is carefully looked to—this is generally 60° Fahrenheit. If too high, the lambs sicken and die very speedily.

The speaker went on to give full descriptions of the various breeds of sheep in Europe, particularly of those (very elegant) on the estate of the Archduke of Austria, which is superintended by thoroughly practical and scientific men, well versed in Sheep Husbandry and in all branches of knowledge taught in the best Agricultural Schools. The fleece of the Merinoes on this estate brings \$75 per the hundred pounds. In breeding, the greatest attention is paid to the purity of the race. It is customary to retain only those of superior quality, and that are unquestionably calculated to improve the breed. Coupling is never allowed until perfect maturity is attained—say 2½ years.

The great question, said Mr. F. with which he had come among us was to find the kind of Wool proper to be raised in this country. The Europeans now think that American Wool can never attain a sufficient degree of fineness to compete successfully with theirs. But we have enterprise enough, and all that is needed is to ascertain the very best breed of Sheep and in a short time we can produce Wool of fully as good quality as any of the European varieties.

In Europe, a cross of the Leicester and Merino produces a staple of about two inches in length and very fine. In regard to the Diseases of Sheep, the Rot is one of the most annoying. Lameness and lung-worms are the diseases of lambs, and if not speedily remedied, will soon destroy them.

Agricultural Education is in a very perfect state in Europe, particularly in the Duchy of Nassau—where nearly all the books placed in the children's hands are on subjects relating to matters on the farm. At the proper age, the children are required to go into the gardens, to commence a practical initiation in agricultural pursuits, and finally the best of the boys are selected and sent to the Agricultural Schools. In the higher classes of these schools, are received young men from academies and colleges. The speaker himself had attended in this manner for some time. The great object of these schools is, not to teach Science, but to impart practical information. The scholar is taught all that appertains to Agriculture, even to a perfect understanding of every machine used—so perfectly that he can pick it to pieces and put it together again with facility. The instruction thus gained is not alone profitable for one year, but for a lifetime, so that when a man dies he may leave his son a practical farmer.

Here, in this country, said Mr. F. very little has been done in this matter—very little practically, at least.—Even \$100,000 applied for Agricultural In-

stitutions among us would do great good. In such establishments let the pupils not talk about the moon and stars, &c. but of things immediately around them, and let the teacher inculcate a love for agricultural pursuits. Even six months' instruction in this manner would be vastly beneficial.

In mentioning the fine state of Irrigation in Europe, Mr. F. said that while in Lombardy he had been particularly struck by this feature of the country. It is so perfect that on the 2d day of the month of May the second crop had been laid down just as he passed through—he turned from the triumphs of Art, Napoleon's Triumphal Arch, Canova's beautiful statues, and all like scenes, and forgot them all at sight of the mills and fine agricultural arrangements of the Lombardians.

Mr. MEIGS, the Secretary, read several papers—translations, &c.—We subjoin a digest of two or three which may possess some interest.

Millet.

Mr. R. J. WHITTEMORE sent a communication on this subject. He says that having spent some time in farming in Western New-York, and in the culture of this grain, and observing that, very often, a dry season had the effect of cutting short the Grass crop, he sowed a few quarts of Millet in a some vacant places. The very great crop of grain and fodder from it, was a subject of remark among his neighbors, and of surprise to himself. When it was gathered, the amount of seed was nearly four bushels, with stalks averaging 3½ to 4 feet high. The next season, several acres were sown, with the same great increase. It was cut and cured thoroughly, and to prevent injury in the barn, it was salted. This was the principal food for five horses during the severe winter of 1842-3. A colt, one of the animals thus fed, brought a premium in the fall of that year. He found the quality of this feed to be such that, after the horses had been fed, the cattle and sheep would consume all the remainder with eagerness.—Mr. Hall states that 50 bushels of Millet can be raised on an acre.

Corn Cobs—Premiums for Corn.

R. L. COLT, Esq. of Paterson stated, in a letter, that in accordance with the request of Mr. SKINNER, he had caused a heaped bushel of the ears of Jersey White Corn, to be carefully shelled—the produce being half a bushel and six quarts of shelled corn and a heaped half bushel of cobs, the latter weighing 7 lbs. Now, if we raise 500 million bushels of Corn, the cobs will weigh 3½ million of tons. Certainly we ought to have these questions fairly and honestly tested—first, whether the cob contains any nutritive power, and if so, how much; and next, do the ashes of the cob contain potashes, and if so, how much, and how are we to get the benefit of it? Shall the cob be burned, or ground with the corn and fed to cattle, and thus get the potashes in the shape of manure?—This is supposing there is no nutriment in the cob, but that Mr. C. does not believe—for, so well persuaded of the value of the cob is he that he is building a mill to grind corn and cob together. And so well satisfied is he, also, that we do not properly appreciate the value of Indian Corn, that he authorizes the American Institute to offer a Premium of \$100 for the best Analysis of the Nutritive Qualities of Indian Corn—the blade, the stalk, the husk, the cob, as also the component parts of the ashes of each.

The Turnip.

The most destructive of the insects which infest this plant are the flea and the fly. The first is called *Haltica nemorum*, for its agility in leaping. The fly

is called *Athalia centifolia*. The flea is a coleopter—it takes shelter among the weeds, in the rough, uneven, uncultivated margins of fields, feeding on the weeds, but ready in warm weather to attack the young turnip leaves.—The first care in remedying this, should be to clear the field entirely of weeds before planting turnips—that the flea and fly may have no shelter.

FARM MANAGEMENT—DISEASES OF SLAVES—TREATMENT.

To a Young Friend:—Duty, interest, and humanity require that you should make yourself acquainted with the diseases that prevail among your slaves, and as I have had much practice with them for the last seventeen years, permit me to give you some advice. During the summer and fall most of the diseases are of the remittent and intermittent form of fever. The intermittent fever, or the ague and fever, as it is called, is so well known that it hardly needs a description. It commences with a chill; when this is off, fever comes on, and this goes off with a sweat. The patient then is almost well until the next attack, which comes on with great regularity the same time the next day, or every other day, according to the type. I will tell you how I treat this disease, by giving you a few cases.

Davy, a boy 18 years old, had a chill at 11 o'clock; he came to me at 12 with a high fever; pulse full; skin hot and dry; head ache; tongue clean; he had a passage from his bowels this morning. Directed him to go to his room, apply a cloth wet in cold water to his head, lay quiet, and keep cool. His fever went off in a few hours, with a free perspiration.—At night cool, and complains of no pain. Gave him five grains of quinine, to be washed down with a cup of warm sage tea. Next day ordered him to lay in bed and take five grains of quinine in a cup of warm sage tea every two hours until 10 o'clock. At this time he was in a gentle perspiration, and complained of ringing in the ears. He had no chill or fever to-day. Next day gave him two doses of quinine, one at 8, the other at 10. No chill or fever to-day. He is cured.

Monk, a boy 15, had a chill to-day at 12 o'clock. At night he is cool and comfortable. Gave him five grains of quinine. Next day made him stay in bed, and at 7 gave him five grains of quinine in sage tea. Repeated it every two hours until 11 o'clock; at 12 he had some ague, a high fever succeeded, with a distressing head ache; bathed his head freely with cold water until the fever subsided; at night he was cool, complaining but little. He has had no passage to-day; tongue slightly coated; gave him calomel twenty-five grains, quinine five grains. Calomel operated well in the night; he is clear of fever, and at 7 to-day commenced with quinine again in the same doses, at the same hours of yesterday. He had no chill or fever to-day, and after this he required no more medicine, except a dose of quinine about 11 o'clock the next day.

Remittent Fever.—This commences like the intermittent, generally with chill or slight rigors. It is almost exactly like the intermittent fever, only the fever does not go entirely off. It subsides and then rises again, without the patient being entirely free from fever at any time. I treat it almost exactly like intermittent fever. I will give a case.

James, a young man, 20 years old, was taken (June 20th) with a slight chill, the chill did not continue very long, he had a high fever which lasted until

evening, it then subsided very much, but did not go off. I directed five grains of quinine to be given every 2 hours until the return of the next paroxysm. 21st, fever came on to-day without any perceptible chill, but is much slighter; in the morning it is almost entirely off. Gave at night five grains of quinine, with thirty of calomel. The quinine to be continued in five grain doses every two hours, until the next paroxysm. The calomel operated well; there was no return of the fever, and after this the boy was soon at work.

What I wish to call your attention to particularly is the importance of attending to these cases in the very commencement. The principal, almost the whole derangement, is then in the nervous system, which the free use of quinine will correct, but after a few fevers the functions of the different organs become deranged, and then the proper medicines must be used to restore them to health; the family physician will then be needed to tell you what is wrong; what medicine you must give. If the disease is not checked at first, it may go on until there is structural derangement, and then it is almost incurable. When one of your negroes has a chill, no matter how well he may appear to be after the fever is off, give him quinine to prevent the next chill; it is as certain to come on about the same hour the next or the day after as the sun is to rise. If you will take the case in hand now, give quinine to prevent the second chill, you will almost always succeed in curing them with that alone. But if the chill is permitted to return again and again, until the healthy action of the different organs become deranged, other medicine is necessary, and then send for your physician.

In the remittent fever, you see I give the quinine as soon as the fever begins to subside, and with it often succeed in bringing about a complete intermission. In the fevers, purgatives are oftener necessary than in chills and fever. I consider all cases of intermittent and remittent fever, and all cases that assume a regular periodical form, no matter what the disease may be, curable by quinine in the commencement.

In the fall and winter, there is a fever called by the doctors here, winter fever. It is a continued fever. The patient complains of great weakness, often there is no pain; skin cool; tongue at first is often clean, often red on the edges with a brown fur up the centre; pulse from 90 to 130, small and soft. When you have one of these cases send for your physician. He will do well if he cures him; and it is not at all probable that he will get up under three weeks.

Bilious Pneumonias also make their appearance here every winter. It is a most dangerous disease, and unless properly attended to is often fatal. The symptoms are cough, difficult and painful respiration, fixed pain in the chest, and fever. The pulse is sometimes full and hard, in other cases soft and small. I will tell you how I treat these diseases by giving a few cases.

E., a negro girl about 14, strong and healthy, had been washing in the day; at night she was taken with pain in the side; breathing short and quick; a deep respiration gave much pain; bled her until the pain was removed, and she could breathe easy. She soon went to sleep, and was easy until day. She awoke complaining of the pain again. The pulse not hard and full like it was when I bled her. I now cupped her until the pain was removed entirely; directed her to keep quiet through the day; she was cured.

A negro fellow, 45 years old, sent for me at night; has had a cold for several days; taken this evening while at work with a pain in the side; pulse at 100, full and hard; deep breathing gives him much pain. Made him sit up and bled him from a large orifice, and let him bleed until he broke out in a profuse perspiration; the pulse softer and less frequent, the pain gone and the breathing easy. His tongue being a little coated, I gave him ten grains of calomel, one grain of tartar emetic, and five grains of Dover powder. He rested well through the night; the calomel operated well. He had no return of the pneumonic symptoms, and soon got well.

H., a boy 18, was taken with a chill, fever followed; at night he had sweat his fever off, and was comfortable. I went to see him early next morning to give him quinine to keep off the chill. Found him with fever; pulse more than a hundred, but small and oppressed; pain in the side; breathing short and quick; a deep respiration gave him much pain. I made him sit up and attempted to bleed him; his veins were small and lay deep; I did not get a gill of blood from a small orifice before he requested to lay down; he was about to faint; his face bathed in perspiration, and his pulse hardly perceptible. His tongue being coated, as soon as he revived, I gave him twenty grains of calomel, and one of tartar emetic, and left him. I called to see him again in six hours; pain had returned; breathing short and hurried; countenance shows much distress; pulse small and frequent, and not hard; he complains of great weakness. Nothing justifies the lancet, but the pain and difficult breathing. I made him sit up, he appeared too weak to sit, and begged to be laid down. I opened the vein, and then laid him down. After the blood had been running for some little time, the pulse became fuller and slower. I bled him until he could breathe easy. That evening he had a slight pain in the side, and I cupped him over the seat of pain, and then applied a blister; a few purgatives and tartar emetic solution was all he needed after this.

In cases of pneumonia do not neglect them at all. More can be done to assist them in the first twenty-four hours than ever can be done afterwards. If with the pain in the side and difficult breathing, you have a full and hard pulse, the lancet, all will tell you, is the proper remedy; but I bleed when there is pain with difficult, hurried, quick or laborious breathing, and I have never had cause to regret it, when it is done on a strong negro when first taken. If the fever should assume any thing of the intermittent or remittent form, give quinine as you would in those fevers. Negroes here bear the lancet well. Their diet consists principally of meat and bread. Every field hand has half a pound of meat a day.

You tell me you want an overseer for next year. It is well; your force will justify you in getting one. I am pleased that you have attended to your business this year yourself. You will now know how laborious the life of an overseer is, and will be able to appreciate one who does his duty. You will have more charity for their faults, for you will see how hard it is to act to please yourself. You will also learn what the duties of an overseer are, and will know how to require of them to do you justice. It is one of the most difficult things in the world to get a faithful and capable overseer. I can only advise who to get, by telling you what one should be. In the first place, he should be a man of the strictest honesty and truth; he should possess the most untiring industry; he should be orderly and systematic in

every thing; he should be firm, strict and humane; he should *love home* more than any where else; he should have sense enough to make just and sensible regulations for the government of the negroes, and firmness to execute them; he should be well acquainted with his business, but not so smart as to have nothing more to learn; if he knows so much, that books and agricultural papers can't learn him any thing, do not, I entreat you, trust him with your business; and lastly, if he *drinks to excess*, do not employ him if he has every other qualification.

Your friend, J. M. TOWNES.

The Mountain, May, 1847.

[Southern Cultivator.]

From the *Genessee Farmer*.

STUDY THE SOIL.

There are many substances in all good soils which every farmer ought to study till he fully understands their nature and properties. First among these is the abundant mineral called *silica*, or pure flint sand. This earth has many interesting and important properties. It is usually from ten to fifteen times more abundant in all soils than any other mineral. After the organized matter is removed from a soil by burning it at a red heat, it is not uncommon to find nine-tenths of the earth that remains, nothing but pure silica; the other tenth being alumina, iron, lime, magnesia, soda, potash, manganese, and carbonic, sulphuric, phosphoric, and hydrochloric acids. Pure siliceous sand is also an acid, having 52 parts of oxygen united to 48 of a metallic base called *silicium* or *silicon*. When ground down to an impalpable powder, (as some of it is in all soils,) silica is sparingly soluble in water. If the water be warm like a summer shower, and especially if it contain a little potash or soda, or both in solution, silica dissolves easier and more abundantly. The quantity of dissolved flint that finds its way through the roots of wheat, corn, timothy, and other plants, into their stems, is much larger than most grain and grass-growers are aware of. Wheat straw usually contains about 67 per cent. of this mineral in its ash.

The most interesting practical question in regard to silica or flint sand is the fact that, the alkalies potash or soda seem to be indispensable to convert it into an available food for the growth of plants. These alkalies exist more or less in the ashes or earthy portion of all plants. Being extremely soluble in sandy, pervious soils, they are apt to be leached out by tillage, and the land is rendered sterile, unless often laid down to grass, and renovated by the application of *wood ashes*, *salt*, *gypsum*, and *lime*, or their equivalents in stable manure.

Alumina is the next most abundant mineral usually found in all soils. Unlike silica, it has alkaline properties. Like potash, soda, lime and magnesia, it is the oxide of a metal, i.e. a metal combined chemically with oxygen. The metal is called *aluminum*, of which there is about 53 parts to 47 oxygen in pure alumina. This earth combines chemically with the acid silica and forms the pure porcelain clay, from which translucent china ware is manufactured. Alum is a compound salt formed by the union of sulphuric acid (oil of vitriol) with alumina and potash. Alumina does not enter plants, and form a necessary constituent in their organization. Only traces of it have been found in their ashes. It exercises an important office, however, in all fertile soils, by increasing their capacity to absorb and retain moisture and nutritive gases about the roots of

vegetables. A soil that contained no alumina would be radically defective. It gives adhesiveness and plasticity to all clays. Without it, the valuable soils of potash, soda, lime, iron, &c., would remain but a short time in the surface soil, and within the reach of plants. Phosphoric acid is often combined with alumina. Throwing the organic matter out of the account, and the eighty or ninety specimens of soil analyzed in the laboratory of the writer within the last year, have contained on average from four to seven per cent. of this mineral.

The next most abundant substance in the soils of Western New York after silica and alumina, is iron. Like those just named, this metal is combined with oxygen forming the red rust of iron. This is called in the language of chemists, the "*per-oxide of iron*." When a bar of iron is heated in a blacksmith's forge and hammered, the thin scales that fly off are called the *prot-oxide of iron*. The difference between these black scales and the rust of iron is that the latter contains about a third more oxygen than the former.* When the oxide of iron unites with the oil of vitriol, it forms the well known salt called *copperas*, (sulphate of iron.)

Iron is found among the incombustible elements of all, or nearly all plants and animals. Thus iron is found in the blood of all red-blooded animals, and of course must exist in their food. This metal exerts a powerful, but not very well understood function in the economy of vegetable and animal life. It is believed by Mr. Downing of the Horticulturalist, to be a specific against the "yellows" in fruit trees. Copperas water has been thrown with a syringe over the leaves of pear and peach trees thus affected, and it is said with entire success. The application of old iron about pear trees, is strongly recommended. We have found from two to six per cent. of the oxide of iron in the soils that we have analyzed. In low land, there is apt to be an excess of copperas, and other salts of iron. Thorough draining is the remedy for this. In dry uplands, it is possible that old and long cultivated fields may lack salts of iron. Very few experiments have been made to test the value of this mineral as a fertilizer for grain crops.

Lime is the next most abundant ingredient in the soils of this region. It is very seldom that we find more than 2½ per cent. of this alkaline earth in any soil. There are exceptions, however, where the proportion of lime increases till it amounts to a calcareous marl.

In 100 lbs. of pure common limestone, irrespective of water, there are within a small fraction 56 lbs. caustic lime united to 44 lbs. of carbonic acid. This acid is expelled in burning lime in kilns. On long exposure to the air, quick lime absorbs both moisture and carbonic acid, and becomes a mild carbonate, such as is found in soils.

It is an interesting fact that soils which over-lie a lime-stone rock, and that pretty near the surface, are greatly benefitted for producing wheat by a top dressing of burnt lime of 50 bushels per acre. Judge PORTER, of Niagara Falls, has tried this practice on a large scale, where the lime rock was within two feet of the top of the ground. It was followed by a marked improvement in his wheat crop. On Gen. HAMMON'S farm the application of lime seems to do little or no good. If our memory serves us rightly, it contains on an average less than 2 per cent. of lime

**Prot-oxide of iron* is formed by the union of an atom of iron with an atom of oxygen. The *per-oxide* by the union of 2 atoms of iron with 3 of oxygen.

in its surface soil. Gypsum, however, (which is formed by the union of lime with oil of vitriol) is of essential service. Pure quick lime is formed by the union of 20½ parts of a metal called *calcium* with 8 parts of oxygen. The most valuable compounds of lime are gypsum and apatite, (bone earth.) The former is a compound of *sulphur* and lime, and the latter of *phosphorus*. Both of these simple elementary bodies are of vital importance in the growth of cultivated plants, and the organization of all animals. Combined with oxygen they form strong mineral acids, which are neutralized by readily uniting with iron, alumina, lime, potash, soda, and magnesia, soils. Practical farmers have too long neglected to study the economic value of the various compounds of sulphur and phosphorus. Gypsum is the only mineral, the importance of which is at all appreciated. Its superiority over lime consists in the fact that it furnishes clover, peas, wheat, and all other plants, sulphur as well as lime. A moment's reflection is sufficient to convince any farmer that no animal can form its bones without lime. And if his soil wholly lacks this mineral, his crops cannot possibly create it out of nothing. Nor could an ox or horse have a particle of bone in its system if its food contained no lime. But lime alone is not capable of forming bone. Phosphoric acid is indispensable for that purpose, associated with lime. Nearly all that is taken from the soil in the kernels of grain, is removed never to return. A great deal of the phosphorus that escapes from the bodies of animals in their liquid and solid excretions, is lost to the fields that yield the daily food of these animals. And yet pure phosphorus is so precious, that a pound of it is worth to-day three dollars in the city of Rochester.

It is not book farmers, but practical agriculturists in Holland and Belgium that make money by giving two pounds sterling for the urine of a single cow a year. They estimate the surface by the square yard which it takes to make a pound of beef, butter, or cheese. They feed their living growing plants, as well as their living growing animals. Wheat is now worth in this city \$1.50 a bushel, and yet no one farmer in ten can afford to study, or let his sons study, the things that nature uses in forming 40 bushels of wheat on an acre! Who cares whether the straw or stems of this plant are hard, bright, strong, and glassy, little liable to rust, or crinkle, by reason of its containing a good deal of silica in its tissues? Science tells the wheat grower how to dissolve fine atoms of sand at the roots of his grain, and avoid the growth of coarse, open, weak, and spongy stems, which will break down with an ordinary shower and wind, and form a nidus for the seeds and rapid maturity of parasite plants. Study the soil and learn how to dissolve flint, and form with it a covering to the stems of your wheat and other grain.

Study the soil and understand the true value of alumina, iron, lime, potash, magnesia, sulphur, phosphorus, carbon, nitrogen, oxygen, and hydrogen. These are the ingredients that Providence has ordained to form the bodies of all that live whether vegetable or animal.—*Dr. Lee*.

When an implement is no longer wanted for the season, lay it carefully aside, but let it be first well cleaned.

Obtain good seed, prepare your ground well, sow early, and pay very little attention to the moon.

Never plough in bad weather, or when the ground is very wet.

From the *Genesee Farmer*.
PEAR TREE BLIGHT.

Mr. Editor:—Will you not, through the medium of your paper, which is so extensively disseminated all over this section of the Union, endeavor to obtain the knowledge of some facts in relation to the blight in Pears? The point to which I especially desire to call attention is, the kinds which are well ascertained to be entirely unaffected by it. I do not by any means despair of finding a preventive of this sad disease—but, inasmuch as it still continues to be exceedingly destructive, it is very desirable to learn the kinds which are proof against it. Perhaps you can give the world the names of various kinds, which you believe are not subject to this disease. If you can, please do so in the *Farmer*, and call for information—and if no one among all your subscribers knows that the kinds specified have ever been affected, that will furnish strong evidence in their favor. And if any one shall have known any of the specified kinds to be affected by the blight, no doubt the information will be communicated with pleasure—with such a description of the manner in which the trees were affected as shall enable us all to decide upon the kind of blight.

The Onondaga does not escape in the general wreck, and indeed I know of no one that does, unless it be the Seckel. *Have you ever known this to be touched by it?* It is said by Downing that the Andrews escapes, but, as that is not cultivated much if any in this part of the State, I have the benefit of no experience. What other kinds can you add to these? I am confident that your long experience must be valuable on this subject, and I hope you will give us the benefit of it, even if it establishes the fact that there are very few or even no kinds which escape the general contagion. Let us know the worst of our case, and we will then set about finding a remedy if possible. Truly,

E. W. LEAVENWORTH.

Syracuse, March 3, 1847.

In compliance with our correspondent's suggestion, we have applied to some of the most experienced cultivators of fruit in Western New York for any facts in their possession in relation to this subject, and give below the remarks of three gentlemen well known to the Horticultural world.

We have not observed the operations of this malady, on particular varieties, with that degree of minuteness that would justify us in expressing an opinion, at present. We intend, during the coming season, to give as much attention to it as possible, and we solicit the co-operation of our friends in the investigation. The insect blight, which occurs towards autumn, is much more prevalent here, than that designated by some as the *frozen sap blight*. In a collection of many thousand trees, we have only had two—the Madelaine and St. Ghislain, side by side—affected by the latter in a period of seven years, while numbers of pear, apple and quince are every season attacked by the former. In all investigations upon this subject, it is necessary to discriminate between the two. The insect blight first appears on the young shoots, and the other on the trunk or large branches, in black spots. Several facts have recently been communicated to us, that we will present hereafter.

DAVID THOMAS, Esq., of Aurora, says:

P. Barley:—Thy favor of the 9th instant is before me. In regard to the great pear blight in my fruit

garden, I cannot say any thing more pertinent than what I sent to the *Ohio Cultivator*, in the summer of 1845, while the particulars were fresh in my memory; and to save thee from the trouble of a search, I submit a copy:

"The severe frost on the morning of the 30th [May,] produced ten times more *fire blight* than I ever saw before. It was not confined to the pear tree, though that suffered most; but the apple tree, and the quince tree share largely in the calamity; and even the cherry tree which was not on the list of such as were susceptible of this malady, did not escape.

"This visitation has furnished the clearest proof that *fire-blight* is not *always* the work of insects. No trace of it had been discovered of late years in the neighborhood; and now it fell on us like a shower—not slowly increasing, as if insects were extending their colony. On a branch of the *Beurre d'Anjou*, most of the fruit perished almost immediately; and in a few days, part of the leaves and twigs gradually assumed the usual appearance of fire blight. It was not the most thrifty shoots, however, that suffered most, as in former cases which had come under my observation; but stunted twigs of a finger's length, were killed down to the main branch.

"The irregular manner in which this fire blight has appeared, destroying only a few twigs on some trees, and dozens on others under the same temperature—might induce some to believe it the work of insects; but plants which insects never attack, present similar irregularities. I have two fine shrubs of the laurel (*Kalmia latifolia*), with shoots about three inches long of the present year's growth. Part of them were killed and part not damaged in the least; and though it might be difficult to explain such phenomena on any known principles, yet the facts are incontestible.

"We have had no frost so severe as this, and so late in the season, since the year 1817."

Doubtless, some varieties of the pear are more tender than others, and yet there is a danger of deciding too hastily. Thus, of *Stevens' Genesee*, I lost one tree entirely, while another was much injured, though I entertain hopes of its recovery. The same disaster happened to a large tree of the *Madelaine*, which we cut down in consequence; but another of the same variety escaped much better, and has continued to bear good crops of fruit. Much may depend on the situation. Where grafts of different kinds, however, stand on the same tree, and some die while others flourish, the evidence seems more conclusive. Thus I had *Bon Chretien Fondante*, and the *Early Denzalonian*, on a tree of the *Summer Bon Chretien*: the former perished, and the latter entirely escaped. On another tree of the same variety, the *Jalousie* was killed outright, while the tree itself—like all others of this sort—was but slightly damaged; and so has been the *Beurre d'Anjou*.

No kinds, however, have escaped better than the *Seckel*, *Virgalieu*, *Washington*, (with one exception,) *Brown Beurre*, *Jargonelle*, *Doyenne gris*, *Skinless*, and *Summer Franc Real*; and none have fared worse than *Bishop's Thumb*, *Napoleon*, and *Reine Caroline*. The *Frederic de Wurtemberg*, *Flemish Beauty*, *St. Ghislain*, the *Thompson*, and *Dearborn's Seedling*, are also among the sufferers; but the main trunks on which they stood appear to be tainted; and this may perhaps account for their condition. *Passe Colmar* and *Marie Louise* have also suffered much.

Very respectfully thy friend,

DAVID THOMAS.

Greatfield, near Aurora, 3d mo. 12, 1847.

P. BARRY, ESQ.:—Yours of the 12th inst. is before me, in which you request of me a description of the apple known as the "Green Sweeting;" and my opinion of its valuable qualities. This is the same apple that was described in the New England Farmer as the Green Sweeting or Molasses Apple. It was then cultivated in New Hampshire, Massachusetts, and Rhode Island, and from the latter State was brought to this county about sixteen years since, by Samuel Clark, Esq., and was propagated upon the farm now occupied by Maj. Upton in Greece. It has been eagerly sought after by all who have tasted the fruit. In its growth it is strong, and upright, and the shoots covered thickly with fruit-spurs. It is a good bearer, and although the young shoots are upright, making one of the handsomest nursery trees, yet in a bearing state they bend off, forming well proportioned tops.

The fruit is of a medium size, rather oblong than round, somewhat round, somewhat resembling the "Golden Sweeting;" skin smooth, at first green, but as it ripens becoming a light yellow.—Flesh of a delicate sweetness, juicy, and melting. In eating from March to May, but may be kept longer.

As to the qualities of this fruit I do not hesitate to pronounce it one of the most valuable sweet apples of the season cultivated with us, not excepting the "Sodus Sweeting," See vol. 7, Hovey, and Thatcher's Orchardist.

You also inquire "whether I have observed any difference in the 'liability of different kinds of Pears to the blight.'" I answer, I have—so far as to liability, I think the old Autumn Bonchretien stands first. With regard to the Seckel, I have not known it to be injured at all. The first tree cultivated in this country, more than twenty-five years since, is now, or was the past season, upon what was the Jesse Hawley farm, on the east side of the river, and a little below your nursery. As many of those in this neighborhood, of the older growth, have been propagated from that, and as you are collecting facts on the subject, it may be well for you to call and examine the original tree.

The first pear tree attacked with this insect (malady) in the neighborhood of Rochester was one on the premises of Mr. West, on Washington street. I observed it, and called and requested the privilege of cutting out and burning the branch on which it appeared, but was refused. From that nucleus it spread in different directions. That tree was a Bonchretien.

I have thought that the "liability" might depend upon the shape and formation of the bud, as we know some afford a more ready shelter for insects than others; while some that are small, and lie close to the branch, do not afford any place for their secretion.

Yours respectfully,

Greece, March 13, 1847.

N. GOODSILL.

FRIEND BARRY:—In answer to your inquiries relative to the Pear tree blight, and what varieties with me have been most liable to be attacked with this disease, I reply in brief that my experience in the matter has been quite limited.—After a residence here of 40 years, and having been for many years somewhat extensively engaged in growing the pear, the sum total of all the trees in my grounds, that have been affected with the disease, is only six.

Some eight years since, early in summer, I discovered in one of the nursery rows three trees whose leaves and branches had become withered and turned quite black. I cut them down close to the ground and burnt them. This variety was the Winter Bell,

of but one year's growth from the bud, and had made a very vigorous growth the year previous. My present impression is that it was a clear case of frozen sap blight. The other cases have been among standard trees, of which I have a very large number. The Belle de Bruxelles, a tree some ten feet high was attacked, nearly one half of the upper branches turned black. I cut it down to within two feet of the ground, far below where it showed any effects of the disease. It again sprouted and flung up strong shoots, but no symptoms of the disease has since appeared.

A large tree, planted 35 years ago, some six years since exhibited signs of this disease in the upper branches. They were cut off; but nearly every year since some of the branches have withered; the main trunk of the tree at last became affected, and the past year it was cut down to the ground.

Three years ago last autumn a very large tree of the Orange Pear suddenly began to wither and droop. The leaves did not turn black, but merely drooped as when suffering from drouth. It was not very dry at the time; the tree was near 40 feet high, and the roots had spread wide and deep. During the fall the tree appeared to revive; and in the following spring it put out as fresh as ever, and, as I then supposed, healthy and vigorous. But early in June the leaves and branches suddenly turned black, and the whole tree, roots and branches, died at once. The inner bark of the trunk and branches was quite black, and very readily removed from the wood.

Without farther experience and investigation, I am not disposed now to give an opinion in regard to the cause or causes producing this disease. Yet I am disposed, even now, to hazard the opinion that the last named case was not a case of frozen sap blight.

Respectfully yours,

B. HOGAN.

Buffalo Nursery, March 11, 1847.

NOTABLE PLAN OF MAKING MANURE.

The following communication contains a most notable instance of how much may be done by the way of accumulating manure, where a farmer adopts the proper system, and uses that perseverance so essential to success in the prosecution of business. His example is worthy of all praise, and we most earnestly commend it to every man who cultivates the earth.

To the Editor of the American Farmer.

MR. EDITOR:—I have been scratching over a small farm for six years, and my neighbors say I have considerably improved my land. I effected this by cultivating on the four field system, and, by a proper disposition of my force, say, four hands, two mules, a carriage horse and one yoke of oxen, I have made an average of 1000 cart loads, 15 bushel loads, of manure a year. I do not speak of this from egotism, but that it may lead me to the real subject of this communication—My big-farmer friends say they have not time to raise manure. Well I entered into the same calculation with them that I propose here: I cultivate about 20 acres annually, and suppose they cultivate 50—allowing two acres a day for a team to flush up.—Here fifteen days are saved at the outset to haul material for manure—make a rateable allowance for each subsequent cultivation of the corn crop for instance, and if figures don't lie, common sense will indicate that time enough will be gained to put on the 20 acres more than double the quantity of vegetable matter than there was on the 50

acres, and consequently the 20 acres will produce as much as the 50. Again the balance of the land is resting, and the farmer is on the search for those materials to manufacture manure, which in his big farming, he had neither energy to hunt for, experience to analyze, or time to accumulate. But the question is often put to me gravely, how do you make so much manure? Where do you get the material? I answer, by asking a question in turn—a yankeeism. By the way we could profit much by a few more yankeeisms. I ask, why do you take down your old fences and haul off the head lands but to get the decayed vegetable matter which the winds of Heaven have blown thus in part, and which laying there exposed to the decaying influence of light, heat, and moisture, is prepared by nature for your crops? Have you not the same material in your woods, branches, and swamps?

I deem it proper to say that with the materials I accumulate, I make one or two composts in summer, on the field intended for corn the succeeding year, surrounding the heaps with a cow pen, and penning my cattle on them from June to November. I then begin to haul marsh mud, salt, (as I have it on my farm) into my barn yard, and what with the stable manure I get through the winter, which is spread evenly over the marsh mud, and subsequent accumulations of old ditch bank, pine shatters and woods mould, I get up to my average number of loads as above stated. By the way, before I close this, I will mention a small matter:—my wife, who prides herself upon her neatness of housekeeping, often complained that she could not make the servants keep the ground around the quarter clean, there was always a bad smell about there—I soon found out the secret—the servants were in the habit of throwing the soap-suds and dish water near the door, and seemed to luxuriate in the fragrance of their decomposition. Well, Mr. Editor, I preferred to put this to a more profitable purpose, so I sent my cart into the woods, had a dozen loads of mould hauled to the very spot where the emptyings were made, rounded the heap up nicely with a basin in the centre, and told my servants to pour their suds and dish water there. These spread through the heap and made me, by occasionally mixing the mass, as productive a bed of manure as I desired, this being hauled out two or three times a year, gives me from twenty to thirty loads a year. The emptyings from the chambers are carried through the same process a little farther from my dwelling, and thus almost insensibly, I make manure enough to dress an acre of land. Since I adopted the above plan, I have had no complaint from my better half, and I give my servants a purer air and save a doctor's bill perhaps. I did not write this communication under the idea that there was any originality in anything contained in it, but thought perhaps some one might catch an idea from it. Indeed, Mr. Editor, I do not know that you will deem it worthy to occupy a place in the *Farmer*—it is in your hands to do with it what seemeth to you best. I disclaim any familiarity with writing for the press, and if it is published by you I shall conclude that you think with me, that "many muckles make a mickle."

G.

Eastern Shore, Md.

SHEEP IN THE SOUTH.

[The following report was made by a committee of the Union Agricultural Society, Columbia, South Carolina. We are indebted for it to the South Carolinian.]

The committee to whom was referred the subject of Sheep Husbandry, beg leave to submit the following Report:

It is a matter of history, that the wool growing interest of the United States has become one of the most important branches of Agriculture. The best varieties of Sheep are annually imported from the old world, and greatly sought after by the wool growers of the new. Immense flocks of Sheep are raised up on the prairies of the North-west, New England and the Middle States, yielding large profits to the growers, for the labor and care bestowed.

It is evident to every one that some change must be made in our industrial pursuits. We cannot longer grow cotton upon our exhausted lands, in competition with the western planters. We must begin to live within ourselves, to direct our capital from old channels, and seek new investments.

At all events, we should supply our own markets with domestic mutton and wool. We should manufacture our own negro linseys, blankets, rugs, &c. This can be done with a great saving to the planter, if attended to. Thousands of acres of land now are thrown out in every section of the back country, upon which sheep would subsist well during the summer months. In winter they may be kept at a very trifling cost.

In the outset, we may say, that there is nothing so important to sheep husbandry as the *master's eye*.—An ounce of prevention with them is always worth more than a pound of cure. They thrive best upon high dry lands, and short pastureage. Rich food is always dangerous to sheep, and the grass which grows upon the low ground and swampy places, is apt to produce the scours and the rot, the best preventive of which, in our knowledge, is frequent salting. During the winter season, the wethers and rams should be separated from the ewes, and particular attention paid to the young lambs. If the ewe after yearning, be turned upon a clover or rye lot, and fed on turnips, peas or cotton seed, for a fortnight, it will make an astonishing improvement in the lamb. All lambs should be marked and castrated, when a few days old; they will never cease growing, and will be fat enough for mutton any time in the fall.

We know no better or cheaper winter food for sheep, than cotton seed; they thrive well upon it, and are fond of it. Turnips are excellent, but we have heard some experienced farmers agree that they will make the ewes lose their lambs. If rye pastures cannot be sown for them, they will live very well upon the cotton fields during the winter, with the addition of a little fodder now and then, and cotton seed.

Salting should never be neglected—it should always be done once or twice a week. We would suggest as a cheap and simple plan, to flatten a log, bore a large auger hole an inch or inch and a half deep, six inches apart, rub tar around the hole and then put in your salt, they will get the tar around their nose and eat some of it from necessity, which will act as a remedy for the snuffles, and often prevent the fly from depositing his egg, in the summer season.

We have often experienced benefit from adding a little hickory ashes and sulphur to the salt. Sheep should be allowed access to pine bushes, the pine leaf is certainly a preventive of many diseases among them.

And a word or two as to the varieties best adapted to our soil and climate.

The stock of sheep generally to be found through-

out the country, is miserably poor, averaging not more than two pounds of wool, and the carcass not exceeding fifty pounds, nett.

The best variety, we should think, for the back country, would be the South Down. They are a hardy race, not too large in carcass to subsist well upon our short pasture, and yielding a good fleece.

Frequent crossing we believe to be highly important, and great care should be taken always to exclude from the fold, as breeders, all sheep that have hair intermixed with their wool.

Old ewes should always be excluded—they bring disease into the flock certainly.

By strict attention to such rules as one's good common sense will suggest, a flock of sheep may be every year improved both to the interest and gratification of the breeder.

All of which is most respectfully submitted.

C. S. SIMS, Chairman.

REMARKS ON TRANSPLANTING FRUIT TREES IN THE SPRING AND AUTUMN.

By S. G. PERKINS, Esq., Boston, Mass.

First prepare the ground where they are to be put, so that water will not remain on or near the roots. Examine the roots of the tree before planting, and cut out all rotten or defective roots, and cut in (shorten) all that are bruised or otherwise injured, to sound wood above the wound. Be careful not to plant too deep, as this may be fatal to your tree.

If the tree does not put out shoots in the spring, at the usual time, or as soon as others do that were planted at the same time, give it one good watering at the roots, and no more while it remains in a dormant state; but if the bark remains fresh, or does not turn black, wash the head and body with a water pot or syringe every evening at sundown, until it begins to shoot or grow, when you may cease watering the head, and water the roots if required. I have had trees to remain until the last of July without putting out a leaf or shoot of any kind, and after that become as fine specimens as any in my garden.

No manure should be put to fruit trees, except it be a little vegetable manure, quite rotten, and that mixed with the earth that is to cover the roots. The question is frequently asked, whether it be best to plant fruit trees in the spring or autumn. This, in this latitude, must depend on the soil into which they are to be put. If the soil be a wet, clayey one, it is best to plant in the spring; but if it be a light, gravelly soil, the autumn is preferable, because you gain four or five weeks in the growth of your plant in the spring.

If water be allowed to remain about the roots of trees that are recently planted, and are not growing, it will probably rot them by becoming stagnant and putrid. Trees should be planted therefore, so that the water will run over and off the roots, which is all they require to afford them nourishment.

Watering the head and body of a tree that is tardy in putting forth its shoots, is the safest, and indeed the only sure mode of bringing them out, while a continued watering of the roots is almost sure destruction to them.

Trees planted on a south wall or fence, that do not put out shoots in due season, should be covered for several hours, when the sun is out, if the weather be warm. The leaves may be considered a sort of suction pump, which draws up the moisture from its roots and produces its increased growth, whereas a tree without leaves, and that is not already attached

to the ground, has no means of carrying off the moisture from the roots. For example, if two branches of equal size and weight, the one with leaves and the other without them, are placed in vessels containing an equal quantity of water, and exposed to the sun, the one having leaves will take up the greater part of the liquid, while the other will consume comparatively little.

Some ten years ago, I imported from Paris two hundred and ten Pear trees on Quince stocks, whose roots, on their arrival, I found to be entirely black and dead. I shaved off with a drawing knife all the roots down to the stump. These I planted in trenches, tying them to cross-bars to keep them firm, and then filled up the trench with good soil. The heads and bodies of these trees were regularly washed in dry weather until they began to sprout, which most of them did in abundance during the summer, and I finally saved out of the whole number, one hundred and seventy-four, which became as well rooted and as good trees as any in my garden.

This has happened more than once. Three or four years ago, I imported among other trees, twenty Plum trees, from six to seven feet high, the heads of which had been budded the previous year in France. These buds had grown from nine to twelve inches long, and were perfectly fresh when they arrived; but the roots on examination were found entirely dead. Two of these I gave away. One was good for nothing, and the other seventeen I planted in my garden, having cut out all the roots that had fibres, they being entirely dead. One of my men said I might as well plant my walking stick. Sixteen of these are now flourishing trees, well grown and well rooted, new roots being induced by means of washing the upper part of the tree.

S. G. PERKINS.

REMARKS.—The foregoing will please such of our readers as like plain, sensible advice, from a thoroughly practical man. We have ourselves seen with great surprise and satisfaction the trees referred to as having been so successfully transplanted by Mr. PERKINS, under what were the most unfavorable circumstances. The great advantage of the mode he practices, of watering the bark, and not watering the roots of a tree, in a half dormant state, our correspondent thoroughly convinced us of in his own garden. Our readers are solicited to put in practice the invaluable advice he gives them. There is no doubt, that half the trees that die annually from the ignorance of transplanters, perish from a mistaken notion of deluging their roots with water daily, when their fibres are so feeble as to dread it as much as a patient afflicted with hydrophobia.—*Editor Downing's Horticulturist.*

ETRURIAN WHEAT.—A letter to the Editor of the Farmer from Peter Evans, Esq., of Chatham Co., N. C., dated July 10th, 1847, says:

"I had fine luck this year with the Etrurian Wheat you sent me—it was said to be the best headed wheat ever seen in this section of the State. About one-third of my crop of wheat was ruined by the fly—the balance was very fine wheat and fine grain—my son made a noble crop of wheat this year, and we shall have to get on some of the reapers, by another season. Our farms are admirably adapted to the use of those Reapers. We have fine crops of wheat in this section, but it is not a general thing; in some of the upper counties, the crop is very much injured by the fly.—I never saw such an oat crop."

FIBROUS COVERING FOR LAND.

MR. G. GURNEY observes that, "if a bush or other fibrous matter were left laying in a field of grass, the vegetation beneath it would soon be observed to be finer or fresher than that around it. This was a fact known to every one, but the agency by which this increase of growth was brought about, evidently involving some great and important but unknown principle, had never been investigated. Flags, rushes, straw, bushes, or, in short, any fibrous covering, would produce a similar effect. Reeds, or wheat straw, applied over grass, at the rate of about a load to a load and a half per acre, would, in a short time, increase the quantity of grass to an incredible extent. The various grasses under it would be found to be healthy, and rapidly passing through the stages to maturity, some growing, some flowering, some seeding. Part of a field of grass placed under this operation for one month had increased in weight, over the remaining portion left uncovered, at the rate of nearly three to one. The green grass from the part untouched, cut at the end of the month, weighed two thousand two hundred and seven pounds per acre; that of the portion placed under the operation weighed five thousand eight hundred and seventy pounds per acre. The grass was weighed as it came from the scythe. During this period, there was not a drop of rain; and gun, nitrate of soda, lime, shell-sand, wood ashes, and other manures, tried against it, possibly from the drought, produced, during this period no very visible action. In this experiment, the fibrous covering was laid on on the 15th of April, and the grass cut and weighed the 30th of May. Half of a hay field was covered on the 2nd of May; and a month after, I had cut and weighed, respectively, the portions of the field covered and uncovered, and found that the one weighed three thousand four hundred and sixty pounds per acre, whilst the other weighed only nine hundred and seventy pounds. As to the length of the grasses in the respective pieces, the trefoil in one case measured three and one-half inches whilst in the other it only measured an inch; clover six inches, in the other one and one-half." He found, on making the two samples of grass into hay, that the proportionate loss of weight was the same in each parcel, and the difference would be, that in the one case he should get three tons to an acre, and in the other only one. Another most important circumstance in the case was, that when "a certain quantity of stall dung would double the quantity of grass in a given time, when laid on in the usual way, that it would increase it six times, when properly treated with fibrous covering."

These are certainly very curious experiments, and they have been repeated successfully by various individuals. "For an individual to satisfy himself, a bundle of straw, say forty pounds, strewed lightly over two or three roods of growing grass, would in a very short time show the effect, when raked off. In the experiments made, all gave uniform results, when conducted fairly. Some used too much covering, but generally too little. All these experiments showed that the action was general; that the difference in increase of growth, in a given time, was in proportion to the natural fertility of the soil."

"The practical instructions for the use of fibrous covering are few, but essential to profitable results. Straw of wheat, oats, or rushes, is to be lightly and evenly laid over growing grass, in the proportion of about a ton to a ton and a half per acre. At the end of a fortnight, it must be raked up in heaps like hay-

cocks, the grass eaten off by cattle, and the covering again relaid. This is necessary in the growing season, otherwise the herbage will grow through, by which the action will cease; the grass will also become entangled with the covering. If the land is good, the grass may generally be eaten off by cattle before the covering is relaid; if not, at the end of the next fortnight—more or less depending on the richness of the land, the season, and the weather—it should be done, and the covering relaid again; and repeated at about these periods through the season. If straw be the material used, it will last through the whole summer. In the autumn it is the practice to rake it off when dry, carry it away, and stack it for winter litter. Ground under the action of fibrous covering, we find from our returns, will keep three times the quantity of cattle as ground not so treated. This experience seems in keeping with our experiments on weight and measure, of the produce thus obtained."—*Colman's Tour.*

GUANO, AS USED IN PERU.

We extract from Von Tschudi, some remarks on the subject of Guano, which may be of interest to our agricultural and horticultural readers.

"Guano is found on all the islands and on most of the uninhabited promontories of the west coast of South America, especially on those parts within the tropics. Opposite to Pisco and China there is a group of small islands, of which the largest, Sangallan, is six English miles distant from Pisco. These islands have of late years become celebrated on account of the great quantity of Guano that has been exported from them. Guano is found in these islands in enormous layers of from thirty-five to forty feet thick. The upper strata are of a grayish brown color, which lower down becomes darker. In the lower strata the color is a rusty red, as if tinged by oxide of iron." "During the first year of the deposit the strata are white, and the guano is then called *Guano Blanco*.—In the opinion of the Peruvian cultivators, this is the most efficacious kind. It is found in the Punta de Hormillos, on the islands of Islay, Jesus Margarita, &c.

"Much has recently been written on the employment and utility of guano; but the manner in which it is applied as manure in Peru seems to be but little known. The Peruvians use it chiefly in the cultivation of maize and potatoes. A few weeks after the seeds begin to shoot, a little hollow is dug round each root, and is filled up with guano, which is afterwards covered with a layer of earth. After the lapse of twelve or fifteen hours, the whole field is laid under water, and is left in that state for some hours. Of the *Guano Blanco* a less quantity suffices, and the field must be more speedily and abundantly watered, otherwise the roots would be destroyed.—The effect of this manure is incredibly rapid. In a few days the growth of a plant is doubled. If the manure be repeated a second time, but in smaller quantity, a rich harvest is certain. At least, the produce will be three-fold that which would have been obtained from the unmanured soil."

We may add, that on the arid coast of Peru, the irrigation of the fields is essential to the procuring of crops. The irrigation necessary, as it would seem, to prevent the plants from burning, can only effect that purpose by dissolving out of the guano the saline matters, and especially the ammoniacal salts, which are the most valuable of its fertilizing principles.—

For irrigation, which, of course, in the field culture of the United States, is neither necessary nor practicable, American farmers must substitute guano diluted with earth, or applied sparingly to the soil. The essential feature in the Peruvian use of guano is, that it is applied as a manure after the plants are up,—not before-hand, at the preparation of the soil; and other travellers who preceded Von Tschudi, inform us that the approved practices of Peruvian gardeners is to dress the growing plants with guano two or three different times —*Phil. American & Gaz.*

THE AMERICAN FARMER.

BALTIMORE: AUGUST 1, 1847.

TERMS OF THE FARMER.—Single copy, for 1 year, \$1—6 copies for \$5—13 for \$10. Address
SAMUEL SANDS,
122 Baltimore-st., Baltimore.

Mr. S. N. WICKERSHAM, of Pittsburg, Pa., is authorised to act as agent for the American Farmer in that section of our country.

See advertisement of sale of Reybold's sheep.

One of the best farmers in this State, on remitting his subscription for the present volume of our Farmer, remarks:

"The number just received, so far as I have had time to glance over it, is certainly second to none of its predecessors in interest.

"I rejoice to see the spirit of enterprise and improvement that is abroad; it not only benefits individuals who are foremost in the good work, but their example will do more to stir up and induce emulation, than all the precepts uttered for half a century past."

We feel indebted to the editor of *Stewart's Journal*, published at Denton, Caroline county, Maryland, for the very favorable notice which he has taken of the "*American Farmer*," for which he will please accept our warmest acknowledgements. We are disposed to think when his friend to whom he loaned our first number of the current volume, shall have read and returned it, he will be ready to acknowledge, that though "the man who publishes this work lives in Baltimore"—and (as he alleges) "never handled a plough in his life"—that its pages are none the worse for that—that though the publisher may not have handled a plough, still its pages show that practical farmers—men who are *au fait* in all that belong to the practice as well as the theory of farming—men who not only know how and when to plough, and when to plant and sow as well as reap—men who know how to analyze the soil, who know its constituent elements as well as those of the grain which grow in it,—we say, we believe when his friend shall have returned the number, that he will be willing to confess, that its pages show the impress that practical farmers, capable of doing all we say, have had a hand in fashioning it for the public mind.

It is but a poor objection to urge against any work that its publisher may not be skilled in the science or art treated of by the book published by him. If

such objections were not utterly futile, what would become of all the works on Theology, Law, Physic, Chemistry, and the Arts and Sciences, which are now and have been standard works for centuries past? But it is useless to waste words upon an exception that defies criticism. It is sufficient that editors and authors, combine a knowledge of the practice and theory of the subjects upon which they may write, to render their labors acceptable to men of intelligence.

We copy the following from the Winchester Virginian—we thank our friend for his favorable notice of our journal, and assure him that any omission to receive it regularly, has not been intentional—but upon referring to our mail book, we discovered the cause why it may have been inadvertently missed—the error is corrected, and so far as we are concerned, it shall not occur again:

THE "AMERICAN FARMER."—This monthly periodical for July, has come to hand. We are proud to receive it, though we regret it does not reach us regularly. This paper, important to the South as well as the North, is entitled to an extensive circulation—from its intrinsic merits—as also from its central position, so well calculated for the collection and diffusion of agricultural information, throughout our country. Unfortunately, we have no such paper published in the valley, and, in our opinion, our farmers could not do better, than encourage the circulation among them of the Baltimore American Farmer. Southern in its main associations, and published at the seat of our best produce market.

CHINA WHEAT.—We have been sent a sample of very beautiful white wheat, bearing this name, grown by Mr. Walter B. Langley, of St. Mary's County, Maryland. It comes to us as not being subject to the Fly or Rust, and that its heads yield some 150 grains. We know nothing farther of its history, but should like to know whence its seed came? how many bushels it will yield to the acre? what it weighs to the bushel? and anything else connected with its history within the power of the grower to give.

It is a bearded variety, with medium sized kernels and as far as we can judge by handling the grains in our fingers, is of good specific gravity.

It is, we learn, for sale by Mr. James Briscoe, Light street wharf.

HOW CAN 12 OR 15 BBLs. CORN PER ACRE BE MADE—ACTION OF ASHES AND PLASTER.

The following communication makes an inquiry of Eastern Shore farmers, with regard to the manner of cultivating corn, by which from 12 to 15 bbls. per acre can be raised, and from the well known courtesy of the people of that peninsula, we are sure it will be answered.

The writer also asks:

"Can any of your correspondents state the results from applications of ashes to land near the salt water?"

Without waiting for a reply from a correspondent, we will state, that ashes will be found serviceable in all locations—that those on salt water require *potash* as well as those in the interior, that salt being essential everywhere, to dissolve the silica in the soil, and form the substance, called by chemists, the *silicate of potash*, which, in fact, comprises the outer crust of corn stalks, grasses and grains, and enables those several plants to stand erect. In all new clays, nature has provided a sufficiency of potash—each succeeding crop, however, abstracts certain portions of it, and hence it is, that the natural supply becomes, after a series of years of culture, exhausted, and a new supply has to be given to the land.

Plaster.—The opinion at one time very generally prevailed, that plaster would not act beneficially near salt water courses. The reason of this was very satisfactorily explained by Sir Humphry Davy, who proved, by analysis, the soils on which failures had occurred were already in possession of the mineral. The *Sulphuric acid* which comprises one of the chief elements of plaster, is the one, we think, that operates so efficiently, its great affinity for *nitrogen* or *ammonia*, causing it to act as an absorbent, or in other words, to abstract that essential ingredient from the rain, the atmosphere and soil, and hold it in reserve for the use of the plants. If this be its use, then plaster is just as serviceable on salt water courses as it is any where else, provided, sulphuric acid is not present in the soil in sufficient quantities to give it a controlling influence on surrounding objects. *Sea water* we know contains, besides *common salt*, *muriate of potash* and *magnesia*, the sulphate of soda and the sulphate of lime, which latter is plaster, and it is presumable that the salt water of our bays and rivers contain the same substances, though in less appreciable quantities. If so, it is to be supposed, that all soils within the reach of the spray will be, to a greater or less extent, supplied with plaster at each occurrence of high winds blowing in towards the shore.

The experience of European farmers prove, that lime which is *slaked* with sea water, acts more promptly and with more salutary effect, than that which is *air-slaked* or *slaked with fresh water*,—the reason of which is obvious—besides the carbonate of lime, the soil is benefitted by the several other mineral bodies found by analysis to exist in sea-water.

Washington Arsenal, July 24, 1847.

In the transactions of the Maryland Agricultural (State) Society, some years since, one or two gentlemen on the Eastern Shore are reported to have stated, that they procured 12 and even 15 barrels of corn per acre. An account of their mode of cultivation would be very acceptable to so young a farmer as myself. Can any of your correspondents state the results from applications of ashes to land near the salt water? And does the present experience support the old theory that plaster does not act well on such lands?

Yours respectfully,

T. L. RINGGOLD.

The Report on Manures, made by Major PETER to the Agricultural Society of Montgomery Co., Md., will be read with interest. We congratulate our friends of that county, on the very efficient mode adopted by them to extend the knowledge of the results of their researches and experiments to their brother farmers. The Reports from the Societies of that county, a number of which we have enriched our columns with, would not discredit, for practical good sense, and sound agricultural information, any of the Associations or Clubs of this country or Europe.

"*A Learner*," it will be seen, has rejoined to Col. Capron. The controversy has excited much interest. The subject is one of the highest importance to the agricultural community. The combatants are of chivalric bearing, and we hope that the motto "*Suaviter in modo*" will not be lost sight of, in the course of the controversy.

TOP-DRESSING FOR WHEAT — LARGE HEADS MEDITERRANEAN WHEAT.

Dr. James A. Shorb, of San Marino, near Emmetsburg, Md., has sent us two heads of *Mediterranean Wheat*, which exceeds in length any thing we have seen of the same variety—they were, respectively, 6 inches, and 5½ inches long, well filled throughout with good sized, plump kernels. As the heads of this species of wheat are generally short, by permission, we copy Dr. Shorb's letter, to account for the cause of the great length to which these have grown.

Dr. Shorb, in his letter to his friend, says:

"I enclose you \$1, which you will apply for subscription to the *American Farmer*. Say to Mr. Sands that I was so much pleased with his two last numbers that I feel myself bound to subscribe.* I send you two heads of *Mediterranean wheat*, that I consider the result of a peculiar mode of top-dressing. The portion of land that yielded these two heads was about the centre of the field—the land on each side similar—the cultivation similar throughout, with the exception of the two lands which afforded this sample.

The soil is a heavy clay, reposing on lime rock. I dressed the two lands in question heavily with half decomposed straw. It was slow in maturing, but the crop produced has exceeded anything I ever witnessed in the same variety of wheat. I can attribute this unusual growth to nothing short of the top dressing. The *Mediterranean wheat* is rather remarkable for its smallness of head—much more so than any other branch of the wheat family."

Dr. S. must be highly gratified at the very flattering result of his experiment, and we should be pleased to receive a paper from him as to his views of the *modus operandi*, as the chemical knowledge which he possesses will, doubtless, enable him to throw great light upon the subject.

*Dr. S. would do most excellent service to the cause of agriculture, if, in his professional rides, he were to induce his friends to follow his most excellent and praiseworthy example.

To make his experiment perfect, he should measure an equal quantity of land on either side of his two top-dressed lands, and when threshed, measure the product in bushels of each, ascertain the weight of each product per bushel, and also weigh the straw produced on each. This would enable other farmers to put a proper estimate upon the efficacy of his system of top-dressing, and thereby arrive at just conclusions.

Dr. S. should also, if practicable, give to his brother farmers the product, per acre, of that part of his land which he top-dressed, and that part which was not dressed; also, state what crop grew on his land last year, and how, if manured.

A communication from Dr. Shorb comprising these points, would be highly interesting to his brother farmers, and acceptable to our pages.

HOW SHOULD GUANO BE APPLIED?

This question is frequently asked, and as often answered differently. In Peru, whence the best kind is brought, it is used at the time of planting and at each working of the grain or corn, in small quantities, in *powder*, which is applied to the drill or hill as the case may be, each of which applications are followed by *profuse irrigations*,—and, as the water is permitted to remain for many hours on the surface, the powdered Guano of course finds its way into the finely pulverized soil, as well from its own specific gravity, as from the force of the water and the open condition of the soil. In this country, as well as in England, it is differently applied, viz: as a top-dressing, in the furrow, and in the hill, care being taken to prevent the Guano from coming in immediate contact with the seed planted. It is also, sometimes harrowed in at the time of planting or seeding; and has been *ploughed in*. In most of these different forms of application, it has done well, more than repaying the experimenter for his outlay of money and time, increasing the quantity of the product, and, in many cases, evidently improving its quality. From the almost universal benefit derived from its application, it has deservedly become a popular manure, and is finding its way to the favor and estates of most agriculturists who have the means and facilities for procuring it. That this manure is truly a valuable one—that it possesses potential powers as an improver, there can be no question. The almost united voice in its favor of those who have used it, forbid all cavil as to its efficiency. That it is a *powerful* agent, the small quantity requisite to manure an acre of land—from 1 to 300 lbs.—is conclusive evidence. The only objections urged against it that we have either heard or read of, are two-fold. First, that when applied as a top-dressing, it is apt to burn in periods of long continued drought, and, *secondly*, that its action is comparatively temporary, its benefits not extending, as some affirm, beyond a single crop. These objections are by no means valid. The first is owing to the method of applying it, and the

second not founded in fact, but rests upon mere supposition, because, from the very nature of the constituent elements of Guano, it is impossible, that, any atmospheric influence which could be brought to bear upon it while exposed upon the surface, during a drought, could so rapidly transform the insoluble into soluble substances, as to cause a total exhaustion of its ammoniacal properties in a single season. The truth of this position we shall show by and bye.

Professor URZ's analysis gives the following as the constituent elements of GUANO:

Azotized organic matter, including urate of Ammonia, and capable of affording from 8 to 17 per cent. of ammonia by slow decomposition in the soil	50.0
Water,	11.0
Phosphate of Lime,	23.0
Ammonia, phosphate of Magnesia, phosphate of Ammonia and Oxalate of Ammonia, containing from 4 to 9 per cent. of Ammonia,	13.0
Silicious matter from the crops of birds,	1.0
	100.00

In the above analysis, we have ammonia in three different forms, neither of which is volatile, not having assumed the form of a *carbonate*, in which latter state it is alone volatile, and therefore liable to escape in a gaseous form. In all bodies of this manure, however, that we have examined there are more or less of ready formed or carbonate ammonia. By chemists the quantity thus formed have been respectively estimated at from four and a half to eight per cent. If these estimates be correct, and no one will question their correctness who may have smelt the strong ammonia smell which is exhaled from a parcel of this manure, whether stored in the hold of a vessel, or packed in bags or casks. If then there be this quantity *already formed* in every parcel of Guano, it will strike the practical observing agriculturists that it is *bad economy to sow it on the surface*, without it be mixed with some other body calculated to absorb, condense, and give it fixidity, and prevent the escape and consequent loss of the gaseous portions of it. There are two substances which may be effectually used, viz: *Pulverized Charcoal and Plaster*. The first of these is by far the best, because of its greater affinity for, its superior capacity as an absorbent, its more prompt action, and from the fact of its being qualified to act without the aid of moisture. But either will act, and act well.

The *urate, phosphate and oxalate of ammonia* are all *involatile*, but more or less soluble when submitted to the action of heat and moisture, these agents to a greater or less extent, according to the per centage of lime or potash found in the earth, tending to produce decomposition and the consequent formation of the carbonate of ammonia. As there are but few soils that possess these latter to any great extent, transformation of the ammonia from the *involatile* to the *volatile* form, would be gradual and progressive,

and it may be, just in quantities to be taken up by the plants as nutriment, and thus, would loss, by evaporation, be prevented, where the *Guano* is ploughed under. Hence we infer that this is the best mode in which *Guano* can be used.

If used alone, as a top-dressing, all or nearly the ready formed ammonia will escape, and that which may, from time to time, be formed under the influence of the sun, will also be lost, except such portions as may be taken down into the earth by each succeeding rain.

If ploughed in, we are satisfied that *Guano* will prove to be a lasting manure; that a single application of two hundred pounds to the acre, in soils of moderate heart, would be sufficient to ensure good crops throughout any system of rotation, and that where clover forms a part in the system of rotation; that the soil at the end of a course would be found to be meliorated in its condition.

There is one element in *Guano* of great value to grain and other crops—we allude to the phosphate of lime, a substance identical with bone dust; but found to exist in *Guano* in a much better state to be given out as food for plants, than bone dust itself. This, in the Peruvian *Guano*, amounts to 11 per cent., a portion calculated to last for several years, and always indispensable to grain, grass and most other crops.

As the period for breaking up the ground for winter grain, is approaching, we have felt it to be our duty to submit our views upon this subject to the consideration of our readers, in order, if they be worth anything, they may have time to avail themselves of them. And we will here remark, that no danger need be apprehended as to loss by burying the *Guano*, as the tendency of ammonia, when in a form to act as nutriment to vegetable life, is always to ascend, and it will be sure to obey the voltaic operation of the roots of the plants whenever they may be in search of food.

From Hovey's Magazine.

ROOT-GRAFTING APPLE TREES.

BY A FLUSHING PROPAGATOR.

Allow me to give to the public, through your valuable journal, some account of the quickest and the easiest mode of raising apple trees by root-grafting as I am desirous of encouraging young nurserymen and propagators in the raising of apple trees.

1st. In the fall, all the seedling apple stocks intended for grafting should be carefully taken up, and placed in a heap in a cellar, and then the roots taken off and carefully preserved by mixing them by sand: all the scions intended for use should be cut before the frosty weather sets in, and carefully placed in sand or earth. Grafting may be commenced as early as convenient; it will not matter if you begin as early as November, and work at it through the winter till March, provided the roots, after being grafted, are heeled into boxes, and placed in the cellar till spring.

2d. All the roots, as you want them, should be washed, and then cut into pieces about four inches

long or less, according to their length, and placed regularly on a table or bench, and the scions cut about three inches long, and placed in a heap near at hand; and then begin to graft. The system which I have always tried, and which succeeded best, is tongue-grafting, making a nice fit with the barks, and then bind slightly with muslin strings. These strings are made by mixing six ounces of Burgundy pitch, six do. of tallow, three do. of beeswax. These should be melted, and then put on to muslin with a brush. It may then be cut into strips nine inches long, and an inch in breadth. This is better than matting, as it does not require to be cut off. The boxes should be made twelve inches deep, two feet in width, and three feet in length, and filled with fine sifted mould or sand.

Trees grafted by this system are the best, grow very thrifty, and are generally fit for sale in two years, if placed in good soil. A man accustomed to grafting can do from nine to twelve hundred a day very easily, and tie his own strings. Weak growing kinds generally grow stout and remarkably straight by this plan, and as it can be done in the winter, when nothing else of consequence can be done, there is a great saving of time.

In the spring, the boxes should be taken out of the cellar, and placed in some frames, pits, or the greenhouse, to start them into growth: or, if none of these are at hand, place them out of doors in a warm situation, as it is necessary to start them two or three inches before planting out; they will not be injured if you do not plant them out till the middle of May. Such has been my practice of root-grafting, and, if properly done, it will never fail to succeed.

Flushing, L. I., June, 1847.

BORERS IN PEACH TREES.—In order to expel the borer from old trees, I take a gimlet, or brace and bit, and bore three or four small holes in each tree near the ground, and fill them with flour of sulphur, with the aid of a quill. I also remove the earth from about the roots of the trees, as far as they are attacked by the worms; then apply a mixture of common oil and sulphur as directed for young trees, replace the earth, and the process is complete.

Butts Co., Ga., May 8, 1847. B. F. WARD.

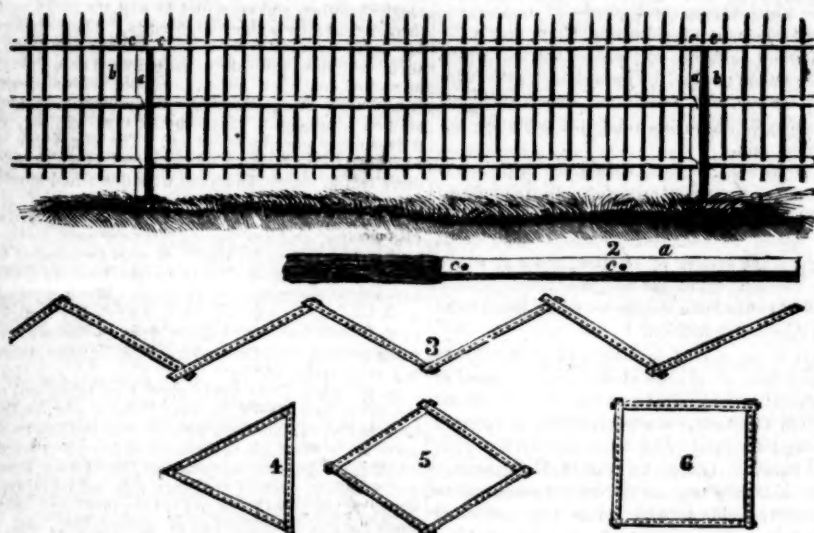
[Amer. Agriculturist.]

AN IMPROVEMENT IN BREAD-MAKING.—Persons who are so unfortunate as to be poorly provided with those agents of mastication, good teeth, will be glad to know that there is a method of baking bread which obviates the necessity of a hard crust. The crust commonly attached to the loaf is not only troublesome to such persons, but is often the cause of much waste. The way to be rid of it is as follows: When the loaves are moulded, and before they are set down to "rise," take a small quantity of clean lard, warm it and rub it lightly over the loaves. The result will be a crust beautifully soft and tender throughout. This is not guess-work.—*Prairie Farmer*.

CORDIAL made by the following recipe, received a premium at the last meeting of the Prince George's Agricultural Society:

Put a large jar of blackberries in a pot of water; boil till the juice leaves the berries—strain through a flannel bag; add spices, sugar, cinnamon and cloves to the taste. After adding these ingredients, put on again and boil ten or fifteen minutes—then skim it and let it get cold. To three quarts of the juice add one quart of the best French Brandy.

A NEW CHEAP ORNAMENTAL FENCE.



A model of this fence, as also a section of the fence itself, have been left at our office, from which we have obtained the above diagram from the hands of our Engraver—Fig. 1. represents it set permanently in a line with posts, a. a.—Fig 2. represents a side view of one of the posts. To make the fence portable, or to set it up without posts, the two outer pickets of each panel, b. b. are removed—the ends of each panel are lapped together (the holes all corresponding) and are then confined by a single picket, giving the fence a worming or zig-zag position, shown by Fig. 3, which forms a secure and self-support.—4. 5. and 6. represent small convenient inclosures for pigs, fowls, &c., although such inclosures can be made of any size.

Having understood that this fencing had been introduced at Triadelphia, Montgomery Co., Md. by our friend A. B. Davis, Esq. we asked his opinion in regard to its utility, &c. to which we received the following reply:

Greenwood, July 23d, 1847.

To the Editor of the American Farmer.

Dear Sir:—In answer to your letter of the 20th inst., requesting my opinion of the Picket fence made for me by Mr. C. Coleman, the owner of the patent-right of the machine for this State, I hasten to reply:

The machine for making this fence is a novel and beautiful piece of mechanism. The pickets are turned and pointed with great rapidity, say from 6 to 10 per minute, according to the speed given to the machine. The rails (three in number) are bored with equal dispatch. The panels are then put together with ease and rapidity, and the fence is then ready for transportation to its destined location. When put up permanently with posts it presents a light, airy, and highly ornamental appearance, and constitutes a formidable barrier against all kinds of intruders—it can be put up however without posts, by changing the end pickets and locking the ends of the rails upon each other in the zig-zag form, and securing them by returning one of the pieces set thro' the holes that have been locked over each other,

and if this mode was adopted it would strengthen the fence by occasionally driving down a stake on each side and securing them together by a cap. The great merit of this fence consists in the rapidity of its construction, economy of materials, and portability of its character—a single yoke of oxen being sufficient to haul ten or a dozen panels, which can be put up by a man and boy in a few minutes, if the last, or zig-zag form is adopted. It will at once be seen that its portable character recommends it to a variety of uses upon the farm. For a cow pen, sheep fold, or enclosure for a stack yard, it is certainly the cheapest and most convenient fence that can be used.

The combination of beauty, economy of timber, and convenience with which it may be removed from place to place, renders this invention a valuable contribution to agricultural improvement.

Very respectfully, yours,

A. B. DAVIS.

For further particulars, see advertisement of Mr. Coleman, on our advertising page. A model of the fence has been left at our office, as also a part of a panel, which may be examined by those feeling interested therein.

"This can't be beat!" as the farmer said, when he pulled up a carrot.

GREAT YIELD OF WHEAT.

Below will be found a communication from Friend Askew, a worthy Quaker gentleman known to many citizens of the county. The two clusters of wheat which accompanied it, and which it describes, were nearly five feet high, and were the handsomest specimens we ever saw.—*Ed. Cecil Whig.*

FRIEND RICKETTS:—Having sometimes seen in the Whig, accounts of extraordinary agricultural productions, and being much in favor of such publications, from an apprehension that they promote an excitement among farmers, which leads to the most beneficial results, I am induced to contribute my mite to the good cause, by forwarding to thee an account of my present Wheat crop. The ground was in oats last season, and almost as soon as it was taken up, the manure was hauled out, stubble broken up, well harrowed, and then left until the 25th of August, when I commenced sowing the Mediterranean Wheat upon it at the rate of a little more than 2 bushels to the acre, and ploughing in pretty deep; then ran a large harrow over it, and left it. I think I have discovered several important advantages from thus early sowing, and ploughing in. In the first place it gives the Wheat an early start, and consequently a strong and vigorous root, and it is not near so liable to be thrown out by the winter frost, (and as was the case with mine) the first growth was to all appearance destroyed by the fly, but this proved to be no injury to the plant, which having an early start stood out wonderfully from the root, as will appear from the samples I have sent thee, as the produce of two grains, tied up separately. There are 55 stalks to one, and 54 to the other, and I presume they will yield about 3000 grains of good sound wheat. Yesterday I shelled out the heads of a single grain numbering 52 stalks and counted them carefully; they numbered 1307 grains. I have the produce of another grain numbering 58 stalks, which I have no doubt will yield 1500 grains of wheat. This may appear almost incredible, and I could hardly believe the evidences of my senses that such could be the result, but I took the several parcels as they were pulled up by the roots in the field, and washed them till there was scarcely a particle of dirt remaining, and then examined them very minutely, and the result was as I have described it; it was only the product of one grain. I have, I believe without a solitary exception, obtained better crops of wheat by ploughing in, than when I harrowed in. Wheat sown late, and harrowed in, has but a poor chance against the winter and spring frosts.

If thee approves of such articles as this, and can find a place in thy very useful paper to insert them, I may probably from time to time, contribute something of the kind, as I make discoveries. I may add that the wheat in this neighborhood, proves to be far better, and more upon the ground, than was anticipated.

I remain thy friend,

PETER ASKEW.

Brick Meeting House, 7 mo. 5th. 1847.

EXTRAORDINARY PRODUCT.—Mr. Fergusson last week gathered as the product of two grains of wheat on Capt. Brooks' Mount Calvert Farm, five hundred and forty-nine grains—one yielding 325—the other 220 grains. Several stalks of this wheat sent us measured six feet, and we counted eighteen stems from one root, and nineteen from another.—*Marlboro' Gaz.*

He that shows his passion, tells his enemy where he may hit him.

For the American Farmer.

RENOVATION OF WORN-OUT LANDS.

Mr. Editor,—I had no idea that my communication in your June No. could raise an issue between Col. Capron and myself, and I can by no means admit that the issue presented by his reply is a legitimate one.

The Colonel's reply is very considerably controversial in its spirit, and both he and Mr. Stabler evince towards "A Learner" somewhat the ready ire of the *Bumble Bee*, who stings when the sanctuary of his nest is invaded by thoughtless feet, without knowing whether the passer-by be friend or foe. I am satisfied that both these gentlemen have given a very cursory perusal to the article of "A Learner;" perhaps they have not perused it at all, but merely glanced it over. They are entirely mistaken in attributing to "A Learner" a determined hostility to what they term the reforms of their school of agriculture, or a devoted attachment to the "vis inertia" of the old school.

"A Learner" presumes to pass judgment on a plan recommended by Col. Capron for renovating exhausted lands, and comes to the conclusion, which he is by no means prepared to admit to be erroneous, that the Colonel's example, however brilliant and praiseworthy, will not be followed except by men of large means and "plethoric pockets," for reasons which are assigned, and which the Colonel in his reply does not impugn. "A Learner" meant merely, that if the Colonel had been compelled to haul all these ashes from Baltimore with his own teams, and perhaps to borrow the money to pay for them, and then to accomplish all the extra labor of spreading, hauling manure, subsoiling, &c., with the ordinary force of an ordinary farming establishment, unaided by any peculiar advantages, even his remarkable energies might have proved inadequate to the attempt; and that he would have found himself stuck in for an enormous bill for extra labor, or been compelled to neglect materially some other crop or improvement. "A Learner" is of the same opinion still; and to make the issue a fair one, it should be shown that operations of the character of this one, are practicable for the generality of our farmers.

But "A Learner" goes further, and administers to the farming community generally a few words of caution or advice, against trusting too much to the use of "bought manures;" asks them to rely more upon the resources of the soil for its own improvement, and presumes to question the necessity of agricultural skill and knowledge to the purchase and application of these manures. He intimates his fear that the astonishing results of the application of these manures in peculiar localities, may induce the "temporary neglect" of what he ventures to call the surer and more legitimate means of improving the soil and elevating the standard of American agriculture. It should have been shown that this apprehension is unfounded; as it (perhaps) may be.

The Colonel has called out Mr. Stabler as an auxiliary, and points to the "Sandy Spring neighborhood" as a Cerro Gordo in the war of improvement. As far as can be seen at present, Mr. Stabler's operations have been such as can be imitated by the most part of our farmers, and are worthy of all commendation. Indeed, I am disposed to claim Mr. Stabler as the embodiment of my definition of agricultural skill—as having "made the soil improve itself whilst it yielded him a support," for he seems to have had no resources but those of his farm.

Now, sir, a few words of reply to Col. Capron,

and after reading his "reply," I am more convinced that I occupy the true position between the *vis inertiae* of the old school, and the fierce zeal and fiery footed speed of the new.

The Colonel challenges my remark about the degree of agricultural skill required to improve land, on what I have, perhaps unfortunately, termed the "high pressure system." The remark was not intended particularly for the Colonel, but is believed to be true in a general sense. I did think, too, I confess, that the Colonel would have to repeat his operations, however effectual, two or three times, before the desired result could be obtained. I hope I am wrong in this. But, if the Colonel's mathematics show, and show truly, "that he has made land which cost \$10 an acre, worth \$50 in one year," and "without the permanent outlay of a dollar," he is perfectly right to stick to them: and I cheerfully relinquish all competition for the medal, which is to reward the discoverer of the Philosopher's Stone.—It brings us irresistibly to the conclusion, which I dare say will be joyfully welcomed by many, that these poverty-stricken Prince George's Co. lands, "where the green crops hide their diminished heads below the clouds," and which have even been denied the genial sympathy of the "smiles and tears of Heaven," are in reality amongst the most valuable lands in Maryland. I hope justice will be done to them at the next assessment of the landed property of the State.

Is there no danger, then, with this vivid picture of unprecedentedly rapid improvement before their eyes, acting upon the cupidity of the community, and their well known fondness for short cuts to fortune, that the surer and more legitimate path of agricultural improvement, may be abandoned for the flowery seductions of this? Is there no danger that many will tire of the snail-footed, patient progress of the regular practitioner in farming—that they will look with contempt upon the hoarding of straws, the cutting and hauling of weeds to the barn yard, the scraping of roads and fence corners, the lifting of heavy ditch banks, and all the tedious heavy labor of the manure maker, when they can borrow a sum of money, buy ashes, guano and bone dust, and with their magic aid, outstrip the quiet, unrelaxed labor of a life time?

And, sir, where is the inducement to improve land beyond the return of the crop? Heretofore many have been cheered upon their laborious path, by the belief, that they were gradually though slowly, adding to their capital by the progressive increase in the market value of their land. This hope is now denied them, for no one will dream of buying improved land, when they can buy land for \$10 an acre, and in one year without the "permanent outlay of a dollar," make it worth \$50; and this increased value is merely assumed from the increased productive capacity of the land, for no one will surely give Col. Capron \$50 an acre for the Field of Buena Vista, or Mr. Stabler a still higher price for the Plains of Cerro Gordo, if adjacent land can be bought for \$10 or less, and by a dose of the Colonel's mathematics brought up to the mark in one year without the permanent outlay of a dollar! Sir, I look to see a *Morus Multicaulis* fever prevail in the poverty-stricken plains of Prince George's and Montgomery.

I have perhaps gone far enough, but I must give my friend, the Colonel, a good-humored broadside for his treatment of my red shirted Dutchman, to whom he is positively spiteful. He calls him plethoric! ascribes to him an air of lazy, indolent con-

tent!! and calls his horses fat, lazy Flemish horses!! For this, he has drawn upon his imagination, and unnecessarily.

No one who reads my communication can be at a loss for my object in introducing him. I do not hold him up for imitation, except in his thorough practical knowledge of farming, as evidenced by the condition of his farm. My main object was to illustrate my idea of what I termed the "capacity of the soil for self-fertilization," upon which I contented myself with advising the farming community to rely mainly.

I have not the smallest idea of comparing him to Mr. Stabler, Mr. Brook, or any of the Sandy Spring worthies, who can both improve land and tell how they have done it: or even to the man who was reading the "*National Intelligencer* at the Saw Mill."—In conclusion, permit me to say that I approve of all means of improving the soil, and would devote every spare cent to the purchase of any manure, but I would advise none to borrow money for the purpose, when other resources for the re-payment of the money are wanting, besides those furnished by the increase of the crop—unless, indeed, the person desirous of making the risk be entitled to say with Richelieu, in the play, "in my vocabulary there is no such word as fail." If my present communication smacks of controversy, it cannot be said of my original intrusion into your columns; and it seems to me that I have used none but fair grounds of reply to the Colonel's article in your last. I wish him and his Sandy Spring friends all possible success and happiness.

Yours, &c.

A LEARNER.

P. S.—Like a lady's postscript, more valuable than the letter—if any of your readers have a few loads of old straw left, let them spread it over the thin spots of their mowing fields, directly after the removal of the crop—they will find the result valuable—It may be spread as thin as possible for an even spread, and will not be in the way next harvest—Old spoiled hay will do as well—the residuum of barracks and stacks.

TALBOT CO. (MD.) CATTLE SHOW AND FAIR.

For the exhibition and sale of Live Stock, Agricultural Implements, and Household Manufactures, to be held at Easton, on Wednesday and Thursday, the 27th and 28th October next, commencing at 10 o'clock A. M., on each day.

Farms.—Best managed rented farm of not less than 100 acres, exclusive of wood land, \$15.00; second best, \$10.00; best managed farm, not rented, of not less than 100 acres, exclusive of wood land, \$12.00; second best, \$8.00.

All persons desiring to compete for the premiums for Farms, will, at an early day, signify the same to the Committee of Arrangements, or to the Examining Committee of Farms, composed of Thomas R. Holliday, John McD. Goldsborough, and Wm. B. Willis, Esq's. who will visit their farms in due season.

Horses.—Best stallion over 3 years old, \$8.00; second best, 5.00; best brood mare, 8.00; second best, 5.00; best saddle mare or gelding, 5.00; second best, 3.00; best single harness mare or gelding, 5.00; second best, 3.00; best pair of matched carriage mares or geldings, 6.00; second best, 4.00; best filly, 4.00; second best, 2.50.

"The variety of horses which possesses size, strength, and endurance for field labor, combined with that action which qualifies them for the carriage

or saddle—in short, the ‘horse of all work,’ is probably the most profitable class which our farmers can now engage in raising; and to such, therefore, will the preference of the Societies be given.” No horse can receive more than one premium. It is desirable that the offspring of a brood mare be exhibited with her.

Asses and Mules.—For the best jack, \$8.00; second best, 5.00; best mule over 3 years old, 6.00; second best, 4.00; best male under 3 years old, 5.00; second best, 3.00.

Cattle.—Best bull over 2 years old, \$6.00; second best, 4.00; best bull under 2 years old, 5.00; second best, 3.00; best cow, 6.00; second best, 3.00; best heifer, 5.00; second best, 2.50; best yoke of oxen, 6.00; second best, 4.00; best ox driver, 2.00; second best, 1.50.

Working oxen offered for premium will be exhibited in the cart. Reference will be had to the matching, training and docility of the animals, as well as to their general appearance.

Beef Cattle.—Best beef, \$6.00; second best, 4.00.

A description of the mode of feeding will be required.

Sheep.—Best ram, \$6.00; second best, 4.00; best lot of four or more ewes, 6.00; second best, 4.00; best lot of four or more wethers, 5.00; second best, 3.00.

In awarding premiums on sheep reference will be had to material difference, if any, in the ages of sheep competing for the same premium.

Swine.—Best boar, \$6.00; second best, 3.00; best sow, 5.00; second best, 3.00; best sow with litter of sucking pigs, 6.00; second best, 4.00.

“In awarding premiums on hogs reference will be had not merely to present condition, or size, but to that proportion between bone and meat which promises the greatest value from the least amount of feed,”—and to material difference, if any, in the ages of hogs competing for the same premium.

Agricultural Implements.—Best two horse flushing plow, \$5.00; best seed plow, 3.00; best tubble or gong plow, 3.00; best cultivator, 3.00; best subsoil plow, 3.00; best draw harrow, 3.00; best horse cart, 5.00; best ox cart, 5.00; best ox yoke and bows, 1.00; best wheat fan, 5.00; best fodder cutter and grinder, 3.00; best horse power, 5.00; best wheat thresher and separator, 5.00; best wheat thresher, 4.00; best grain separator, for separating small grain from the straw, 3.00; best screen or other machine for cleansing seed grain, 3.00; best horse power grist mill, 5.00; best corn sheller, 3.00; best straw cutter, 2.00; best corn and cob crusher and grinder, 3.00; best drill harrow, 3.00; best reaping machine, 5.00; best wheat drill, 5.00; best churn, 1.00; best machine for gathering clover seed, 3.00; best machine for cleaning clover seed, 3.00; best grain cradle, 2.00, best washing machine, 1.00.

Domestic Manufactures.—Best hearth rug, \$4.00; second best, 2.00; best quilt, 3.00; second best, 2.00; best counterpane, 3.00; second best, 2.00; best pair fine woolen stockings, 1.00; best pair coarse woolen stockings, 1.00; best pair woolen gloves, 1.00; best pair cotton or thread stockings, 1.00; best pair thread gloves, 1.00; best pair worsted slippers, 1.50; best pair embroidered slippers, 1.50; best piece fulled kersey negro cloth, (price to be stated,) not less than 25 yards, 4.00; best pair of field laborer’s shoes, (price to be stated,) 2.00; best sample home-made soap for domestic uses, not less than 10 lbs., 3.00.

Butter.—Best sample fresh butter, not less than 3 lbs., \$4.00; second best, 3.00; third best, 2.00; best sample potted butter, not less than 10 lbs., and not

less than 3 months old, 4.00; second best, 3.00; third best, 2.00.

Bread.—Best loaf of light bread, \$2.00; second best, 1.00; best sample of corn bread, 2.00; second best, 1.00.

Public bakers cannot compete for premiums for bread.

Plowing Match.—Best plowing with two horses or mules, \$8.00; plowman, 4.00; second best with two horses or mules, 6.00; plowman, 3.00; third best with two horses or mules, 4.00; plowman, 2.00.

In this trial no person other than the plowman shall manage or drive the team, and in awarding the premium, reference will be had to the manner of the work as well as to the time employed in its execution.

Field Crops.—Best 5 contiguous acres of wheat, \$10.00; best acre of wheat, 5.00; best 5 contiguous acres of corn, 10.00; best acre of corn, 5.00; best acre of oats, 5.00; best $\frac{1}{2}$ acre Irish potatoes, 4.00; second best, 2.00; best $\frac{1}{2}$ acre turnips, of any variety, 4.00; second best, 2.00; best $\frac{1}{2}$ acre beets, of any variety, 4.00; second best, 2.00.

An average sample of each crop with an account of the mode of cultivation will be exhibited; and in no case will a premium be awarded unless satisfactory evidence be produced that the ground and crop have been accurately measured and the sample fairly selected, in the presence of not less than two competent and disinterested witnesses.

Vegetables.—6 best stocks of celery, \$1.00; 3 best heads of cabbage, 1.00; 12 best carrots, 1.00; 12 best parsnips, 1.00; 12 best table beets, 1.00; 12 best onions, 1.00; 12 best tomatoes, 1.00; best pumpkin, 1.00; 3 best squashes, 1.00; best peck of Irish potatoes, 1.00; best peck of sweet potatoes, 1.00.

Poultry.—Best pair of turkeys (male and female,) \$2.00; best pair of geese, 2.00; best pair of Muscovy ducks, 1.00; best pair puddle ducks, 1.00; best pair of fowls (male and female,) 1.00; best pair of capons, 1.00.

The farmers of Maryland are invited to compete for premiums for wheat and corn crops upon the following terms:

Best 50 acres wheat, 5 subscribers	\$10 each,	\$50.00
Best 50 acres corn, 5 subscribers	\$10 each,	50.00
Best 10 acres wheat, 5 subscribers	\$10 each,	50.00
Best 10 acres corn, 5 subscribers	\$10 each,	50.00
Best acre wheat, 5 subscribers	\$5 each,	25.00
Best acre corn, 5 subscribers	\$5 each,	25.00

For each of the above premiums at least five competitors will be required, (any greater number may compete,) who shall each subscribe the amount above stated, and the successful competitor will receive in plate the value of the whole amount of the subscriptions to the premium for which he may compete.—Persons wishing to compete for these premiums must signify the same to the undersigned Committee, on or before the 15th of June, 1847, and will report their crops agreeably to the rule above stated for field crops.

1. Discretionary premiums will be awarded to such animals, implements, &c., not enumerated above, as shall be deemed particularly worthy of notice or encouragement.

2. All subscribers to the show to the amount of two dollars, shall, upon the payment of the same, receive a badge as evidence thereof—shall be admitted within the enclosure free of charge, and shall be permitted to exhibit for premium any articles of which they are the bona fide owners.

3. Badges will be procured at the drug stores of E. M. Dawson & Brothers, and R. F. Hemaley, Esq., and at the gate of the enclosure.

4. In all cases, the *bona fide* owners of articles offered for premiums must be residents of the Eastern Shore of Maryland, except in the case of Agricultural Implements, negro clothing and laborer's shoes.

5. All animals and articles offered for premiums will be presented to their respective Attending Committees, who will number them in the order of their presentation, and assign them to their proper stations within the enclosure—the owner of the article or animal having first exhibited his badge as evidence of the payment of his subscription.

6. The Committees of Judges will call on their respective attending Committees within the enclosure at 8 o'clock A. M., who will furnish them with the requisite papers, and aid them in organizing and preparing their business. The Judges will commence their inspection at 11 o'clock A. M., and will award premiums to the articles as *numbered*, the names of the owners being concealed from the Judges as far as practicable. The chairman of each Committee of Judges will announce the decision of the Committee, and it is requested that each individual Judge will not divulge the decision of his Committee previous to the report.

7. The owners of Bread and Butter offered for premium will take charge of their respective parcels at 2 o'clock, on the first day.

8. The owners of articles of Domestic Manufactures will take charge of their respective parcels at 1 o'clock, on the second day of the show.

9. The first day of the exhibition will be devoted to the inspection and examination of every thing offered for show or premium.

10. On the second day the show will be continued, and the Plowing Match will commence at 9 A. M., precisely.

11. The reports of the Judges and the award of premiums will commence at 12 o'clock, and the auction of such stock and articles as may be for sale, will take place in the afternoon at $\frac{1}{2}$ past 2 o'clock.

12. No article or animal to which was awarded a first premium at the last show can compete for the same premium at the next show.

13. Admission within the enclosure 25 cents—Children and Negroes half price.

M. T. GOLDSBOROUGH,	} Com. Md. Ag.
S. M. JENKINS,	} So. for E. Shore.
JOHN W. MARTIN,	} Com. Far. Ins.
MARTIN GOLDSBOROUGH,	} Association.

Easton, May 8, 1847.

CHEESE MAKING.

The first thing to be looked after in a cheese dairy, is to provide a dozen or more good cows, and these with a full and regular supply of nutritious food.—Upland pastures, or herbage that grows on dry land, yields more cheese per gallon of milk, as well as more per week from the same cows, than grass which grows on wet, sour soils. Having secured a sufficient quantity of milk daily to make a good cheese, the next step is to separate all the curd from the whey and retain as much of the butter or cream in the former as practicable. If this is skillfully done, and the cheese properly salted with pure salt, pressed and cured, a most valuable product rewards the labor of the dairyman. Different persons have very unlike methods for saving rennets, and preparing them for use. We have nothing new or worthy of note to offer on this point. A word of caution, however, to the dairy-woman, not to let incipient decomposition in the prepared entrail be such as to impart an offensive taste or odour to the cheese at any

time. A defective rennet will spoil an otherwise most valuable curd, which no after treatment can remedy.

When the gastric juice, or animal substance is just what it should be, the use of too much rennet is a very common error. According to Mr. Colman, the rule in the best English dairies is to put into the milk no more rennet than will suffice to coagulate the same, or separate the curd in fifty minutes.—Dairy women are apt to be in a hurry to get on with their work, and in their impatience throw in and incorporate with the curd too much gastric matter.—If the milk is at a proper temperature, a very little will answer the purpose. Mr. Colman says, "the temperature of the milk, when the rennet is applied, should be from 80 to 84 degrees Fahrenheit." He also remarks that "the dairy-women in some parts of England, who make a very good cheese, make their cheeses cold; that is, coagulate at a very low temperature. This cheese is said always to meet a quick demand. They likewise salt them but lightly." We regard these suggestions as of much practical value; for we have studied with some care the *art* as well as the science of cheese-making.

Various contrivances are in use for cutting or breaking the curd into fine pieces when it is fully solidified. The operation should be performed with care and by an experienced hand. It is easy to rob a cheese of much of its richness before it goes to press.

The quantity of salt to be used is one pound to 42 of cheese. The salt should be of the purest kind. The lever press is preferable to the screw, because it follows down the compression of the curd with an uniform weight, and a screw does not.—*Genesee Far.*

IMPROVED PLAN FOR GROWING MELONS.

We noticed last summer, in the garden of W. Neff, Esq., at Yellow Springs, a mode of growing melons, &c., that was entirely new to us; and, as we thought, decidedly superior to any plan we had before seen. The following letter, recently received from Mr. Neff, though written in haste, is sufficiently explicit to enable our readers to understand and adopt the plan:—*Ohio Cultivator*.

CINCINNATI, March 20, 1845.

M. B. Bateham, Esq.—My plan for growing melons, and similar vines, (which you saw in practice at my garden last summer) is as follows:—In the centre of a bed, about 20 feet square, form a mound of yellow earth about two feet high and 7 feet in diameter at the base; on the top of this mound, place a barrel, with both heads out, the lower rim to be forced an inch or two into the surface of the mound; then fill the barrel with rich manure, to the top. On the slope of them round from the barrel to the base, plant seeds; and as the plants begin to run, direct the vines from the mound over the bed. I only spread the ground as the vines approach, so that they have newly turned soil to run upon.

When the rains are not sufficient, pour two buckets of water in the barrel, in the evening; which passes through the worm manure, (heated by the sun during the day,) becomes a most excellent fertilizer as it oozes among the roots, down the sides of the mound. The trouble of adopting this method is but little—the expense, nothing; and the vines can be nourished as is desired. The product is vastly increased thereby, and, in a dry season, the benefit is incalculable.

Sincerely yours,

WILLIAM NEFF.

Our readers will doubtless learn with surprise, mortification and regret, by the following announcement, that Mr. GOWEN has abandoned the contemplated Agricultural College project, for want of adequate support:

MT. AIRY AGRICULTURAL COLLEGE.

To the Editor of the Farmers' Cabinet:

DEAR SIR,—As my circular in reference to an Agricultural College appeared first in the Cabinet, I deem it but proper that the response, or success it met with from the public, should also be first communicated through the same channel.

It will be recollected, that my zeal for the promotion of agriculture, led me to propose, in February last, the founding of an Agricultural College, on a liberal scale, at Mount Airy, provided the public would encourage the effort so far, as to furnish for certain, eighty students, by the 1st of July, to begin with.

The patronage required was very moderate, in view of the expense to be incurred in carrying on an Institution such as I had contemplated—yet I was willing to risk the outlay in material, Professors' salaries, &c., to be met by an increase in students, or from my own private purse. I am, however, relieved from further speculation on this head, as the students offering to enter, up to the time limited, fall far short of the number required by the terms of my circular—and I am therefore constrained to announce to the public, that the College cannot go into operation. Thus my darling scheme of promoting the interests of agriculture and horticulture, is for the present suspended, if not altogether abandoned.

To you, and the gentlemen conducting the Agricultural press, and Editors in general, who entered into my views with such disinterested zeal, and manifested such personal kindness to myself. I return my grateful acknowledgments; and should they copy this, or inform their readers that my humble attempt has thus far proved abortive, they would add to the obligation their courtesies have already imposed upon me.

To the gentlemen who forwarded the names of their sons, to be enrolled as students, and others, whose spirited and patriotic sympathies were enlisted in the cause, I cannot but express my most unfeigned friendship and profound respect—tendering to them in the same spirit their offering was made, my best assistance, should any of them essay, as I have done, to promote and elevate the character of the agriculture of the country.

Respectfully yours, JAMES GOWEN.
Mt. Airy, Philadelphia, July 5, 1847.

VALUE OF CORN STALKS AS MANURE.

The following interesting letter will, we are sure, cause agriculturists to reflect upon the value of corn stalks as an improver of the soil. Their action in the present instance is to be ascribed to four causes—1st, To the *silicate of potash* which is their chief constituent element—2d, To their capacity while undergoing the process of decomposition, like all other vegetable bodies, of attracting *nitrogen* from the air, &c.—3d, To the *shade* and *moisture* which they afforded to the clover plants; and 4th, To the actual nutriment which they gave out, while the partial decomposition, which they underwent, was going on.

Such facts as our correspondent discloses, are truly valuable, and we hope his example will set other agriculturists to thinking.

Bel Voir, A. A. Co., July 1st, 1847.

To the Editor of the American Farmer.

DEAR SIR:—I herewith send you three specimens of Clover taken from the same field—one you will find about six inches in length, another about eighteen, and the other about twenty-four inches and just showing the blossom.

My object in sending them to you is to show you the cause, and as far as I can ascertain, the only cause of difference in the growth.

Last fall, immediately after gathering corn, I had the stalks which were left, cut off at the ground, and thrown into heaps. My object in cutting early being to cure them with as much sap as possible, and save them from loss by evaporation, by throwing into heaps. These heaps were left, and hauled away at my leisure during the fall and winter, as they were required in the cattle yards. The clover seed was sown upon this ground early in the spring. The crop suffered very much from the drouth, and the smallest specimen shows the growth under the ordinary circumstances of the field—the second size shows the growth immediately around where a heap of stalks lay, but not covered or protected in any way—and the third size grew where the ground is still pretty well covered with the stalks.

The superiority in the last case may be attributed in some measure to the moisture preserved in a very dry season by the covering of the stalks, but must be mainly attributed to some fertilizing property washed from the stalks by the rains. This is undoubtedly so in the second case, where the improvement was caused only by proximity to the heaps. The fertility caused through the field by these stalks is manifest, and is attested by a growth of weeds and clover, conspicuous even when they had been removed at an early period.

These facts suggest the importance of giving much more attention to this valuable material for manure than it frequently gets. Where the practice prevails of cutting off the corn at the ground, the stalk of course is saved in good order. But when the blade and tops are first secured and then the corn, the stalks are generally left, exposed singly to the effects of frost, rain and atmosphere, and only gathered, if gathered at all, when their chief value is gone. It should be a matter of prime importance to cut and heap them immediately. It is difficult to estimate the loss to the quality of the manure heap, by failing to give this attention to so large an item in our ordinary materials for making manure.

It occurs to me that a good method of using these stalks when they cannot well be used up in the farm yard as frequently happens, is to spread them immediately upon grass land. The effect shown upon my young clover by those left by accident convince me that I should have gotten much better profit in that way from a large quantity which remains in my yard still, scarcely fit for the ordinary method of using manure.

Yours, respectfully,

N. B. WORTHINGTON.

It is better to cut grain just before it is fully or dead ripe. When the straw immediately below the grain is so dry that on twisting it no juice is expressed, it should be cut, for then there is no further circulation of juices to the ear. Every hour that it stands uncut after this stage is attended with loss.

HORTICULTURAL.

WORK IN THE GARDEN.

Cabbages.—Avail yourself of the first rain in this month to set out your Savoy and other cabbage plants. In setting them out use the mixture of *soot* and *sulphur* we recommended last month. In the preparation of your beds, you must have in mind that as cabbages are gross feeders, you must manure your ground with an unsparing hand.

Spinach.—The first week in this month sow a bed of Spinach—it will be fit to use in September. In the last week sow another for spring use.

Sowing Radishes.—In the early part of this month sow *short-top*, *salmon* and *white Naples* radish seed—about the middle of the month sow more of the same sort. These will come into use in September and October.

About the 20th of the month sow a crop of *black* and *white* Spanish radish seed for late fall and winter use.

Asparagus Beds.—Have these well cleaned of grass and weeds.

Celery.—Earth up your forward celery. That being done, set out your plants for winter use in the following manner:

Select a piece of rich deep loamy ground, in an open exposure, mark out the trenches by line ten or twelve inches wide, and allow the space of 3 feet between trench and trench. Dig each trench a *spade* deep, laying the dug out ground equally on each side between the trenches; lay 3 inches deep of rotten dung in the bottom of each trench, then pare the sides and dig the dung and parings with an inch or two of the loose mould at bottom, incorporating all well together, and put in the plants.

Previous to planting, trim the tops of the plants, by cutting off the long straggling leaves, and also the ends of their roots, leaving the former about six inches long, and the latter two.

Let the plants be set with a dibble, in single rows, along the middle of each trench, about 4 or 5 inches apart. As soon as planted give them a plentiful watering, and shade them till they strike root. This can be done by placing a forked stick in the ground at each end with poles from fork to fork, across which planks or pine bushes may be laid.

The plants when eight or ten inches high should have their first earthing. This must be done in a dry day. The earth must be broken fine and laid on gently to both sides of the plants, always taking care to leave the hearts and tops free. This must be repeated every 10 or 12 days, until they are blanched of a sufficient length for use.

Peas.—A few rows of marrowfat, early frame, or charlton peas may now be sown for late use.

Beans.—Bunch beans may now be planted for table use or pickles.

Small Salading of all kinds, such as *Lettuce*, *Cress*, &c. may now be sown on shady borders.

Endive.—Tie up your endives which are full grown, or cover them to blanch with boards.

Melons and Cucumbers.—Keep these clean.

Herbs.—Medicinal and pot herbs should now be cut and dried in a shady place.

Lima and Carolina Beans.—Weed and hoe these.

Sowing Early York Cabbage Seed.—If you are so-llicitous that your family should have an *early* supply of cabbages next season, procure seed of the earliest varieties and sow them. When it is time for setting out the plants, we will tell you how to prepare the ground.

Brussels Sprouts.—This is the earliest spring greens, and a most delicious vegetable it is. A bed 20 feet by 30 or 40 feet will enable you to grow as many sprouts as will answer for a very large family.

Preparation of the bed.—Cover the bed with stable or barn yard manure, say 2 inches deep, then spade it in the depth of the spade, taking care to rake as you go, when this is done, put a pretty good dressing of well-rotted manure on, rake that in—then sow the seed as you would turnip seed, rake them in and pat the earth in with the back of your spade. When the plants come up sow ashes over them while the dew is on, and all the cultivation they will require will have been performed. In *early spring* you will be sure to have a bed of delicious tender sprouts.

General Care.—See that your garden is kept clean of weeds and grass, and that nothing of the kind is permitted to go to seed.

Fruit Trees.—If you have not already done so, wash the trunks of your fruit trees with a solution of *Potash*, 1 lb. dissolved in 2 gallons of water will be about the right strength. That done paint them with a mixture formed into the consistence of thick cream, composed of 1 lb. Sulphur, 1 gal. of soft soap and 1 quart of salt, taking care to put it on from the roots upwards as far as you can reach.

Strawberry Beds.—Have these cleaned of the weeds and grass and the runners cut off. If you desire to make a new bed, you may do so by transplanting the runners. Water the new bed every afternoon just before sunset until the plants take root.

From the Ohio Cultivator.

ON PLANTING STRAWBERRIES.

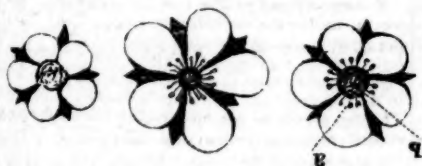
ARRANGEMENT OF PISTILLATE AND STAMINATE VARIETIES.

From the middle of July to the middle of September, may be considered the best time to plant new beds of strawberries; or as early in summer and all as the young offsets have become rooted, and when rains have thoroughly moistened the ground. If deferred later than September the plants will hardly become well enough rooted to withstand the winter; and besides, the yield of fruit the succeeding spring will be slight.

The soil for strawberries should be of a medium betwixt sand and clay—though they will do well on any good common soil. We think a clayey soil is

preferable to sand or to black loam. The ground should be worked very deep, by spading or deep plowing; and if poor, manured with well rotted manure; but too much manure is not favorable for a good crop of fruit.

In planting, the first thing to be considered is, whether the plants are a staminate or a pistillate variety. Attention to this subject, is the great modern improvement which has in two or three years revolutionized the business of strawberry growing, and for which the public are largely indebted to the essays of Mr. Longworth, of Cincinnati. The distinction between the different kinds of blossoms may be readily understood from the following representation:



1. Staminate, or perfect, fruit bearing. 2. Staminate, barren. 3. Pistillate—fruitful if near staminate.

The first figure represents a blossom having both stamens and pistils; the former, (a) placed in a circular row around the latter, (b) and both being well developed, the plants of this character bear good crops of fruit planted alone; though they are seldom as productive as the purely pistillate sorts when grown contiguous to staminate.

No. 2 represents a flower in which the stamens are strongly developed and the pistils are defective—hence, such plants will bear little if any fruit; though like No. 1, the blossoms may serve to impregnate flowers of the character represented by No. 3. These are not worth cultivating.

No. 3 is a pistillate flower—the kind that should compose at least three-fourths of every plantation. Of this character are Burr's finest new seedlings, Hovey's, Hudson, and most other large and productive varieties. But, as before stated, while a plantation should be composed mainly of kinds having pistillate flowers, they will not produce half a crop, if indeed any at all, unless some plants of a staminate variety, (like No. 1 or No. 2,) are planted among or alongside of them; and as some varieties like Burr's old seedling and early scarlet, answer the double purpose of producing a crop and impregnating others, such kinds are selected in preference to those which bear little or nothing, as No. 2. And inasmuch as staminate varieties are apt to throw out the strongest offsets and outgrow the pistillates, it is advisable that they should be kept in distinct beds, or rows so far apart that the plants will not intermix.

The distance apart at which strawberry plants should be set, is greater than has usually been allowed them. Two feet is none too far for strong growing kinds, where the largest fruit is desired; or at least 1½ feet in the row with two feet between rows. Beds 4½ feet wide, with three rows on each, is a very convenient size. Then we would arrange the staminate and pistillates in alternate beds of equal size; or if but few staminate plants are desired, they may be planted in a single row with a path on each side, between the beds of pistillates, as recommended in the last number of the Horticulturist, thus:

Pistillate. Staminate. Pistillate. Staminate. Pistillate.



INDUCING FRUITFULNESS IN PEAR TREES.

FRIEND HOLMES:—There are many varieties of pears amongst us which are inclined to grow very erect, with lofty and luxuriant tops, but do not fruit until ten or fifteen years old unless their habits are changed by art.

The free and vigorous circulation of the sap forms leaf instead of fruit buds, except when its progress is retarded by some artificial mode.

Various methods have been practiced to bring such trees into bearing while young. Heading down the top causes the tree to throw out lateral branches and fruit spurs, and generally produces the desired effect if performed in season. Some of the finest trees I ever saw were in the nursery of Mr. P. Wilder, Dorchester, President of Massachusetts Horticultural Society. He informed me that they were headed down one year previous to removing as standard—that they had a more vigorous constitution and came into bearing much earlier than when forced upward with slender branches.

Root pruning is sometimes successfully practiced. The object is to cut off a part of the nourishment so as to check the growing energies of the tree, and fruit buds will form the next season; this should be performed in the fall or first of winter.

But when trees have attained the height of eight to fifteen feet, the most simple and effectual mode of rendering them productive, is to bend the limbs down below a horizontal position, and tie them to the main stem or to stakes driven into the ground; it should be performed in this month or early in next, and fruit buds will form for next season. We are satisfied, from experience, that it is well worth the trial. Our trees which have been thus trained have borne well, and now promise a much larger crop than others which have retained their upright form.

S. N. TABER.

Vassalboro', 6th mo., 1847.

[Maine Farmer.]

VALUATION OF LAND IN MARYLAND.—The following information, touching the valuation of land in the several counties of this State, is derived from the Report of the Committee on Ways and Means, made at the last session of the Legislature:

The average valuation per acre in St. Mary's county, is \$9 91; in Charles county it is \$5 71; in Prince George's, \$18 42; in Calvert, \$10 64; in Anne Arundel, \$13 22; in Howard District, \$15 16; in Baltimore county, \$19 94, in Frederick, \$27 13; in Washington, \$29 14; in Montgomery, \$9 17; in Carroll, \$17 89; in Harford, \$11 58; in Talbot, \$16 80; in Somerset, \$6 97; in Cecil, \$16 89; in Worcester, \$5 31; and in Caroline, \$4 88. Neither Allegany, Kent, Queen Anne's nor Dorchester, is mentioned in the report, so that we are unable to give the valuation of land in those counties.

For the American Farmer.

MA. EDITOR.—In your No. for July you refer to an article published in the London Agricultural Gazette, which I should be pleased to see published at large, or such extracts as you may deem instructive, if you should think the article would occupy too large a place in the American Farmer.

The limits of steam cannot be calculated, and I have long thought that it could be practically applied to agriculture, and I do not think there is any of the Atlantic States where it could be more successfully used, than on the Eastern Shore of Maryland. There are no stones, and but few stumps, to interrupt the course of the Steam Plough. We have large fields to flush for corn, and extensive fallows to break for wheat; and unless the weather be favorable, it is hard laborious work, both for men and horses, and is very often most imperfectly done in dry seasons.

Last week I was making preparations to thrash my wheat, from which I am diverted by the fine saturating rain of Saturday, and am now sending my forces to breaking my fallows. In this I am instructed by the experience of former years, particularly the last, when part of my fields remained unsown, in consequence of the excessive drought of August and September, (I hold that lands will not produce to the full of their capability, unless they be broken four weeks before they are sown,) and I preferred a diminished cultivation to bad husbandry.

I should be pleased if you would state in the Farmer, what a steam power would cost, which would drive ten ploughs, to the depth of from five to eight inches, and how much such a machine would break in ten hours. If you be not familiar with this subject, you must know scientific mechanics in your city who could give the information. If we could have our lands broken in the spring and fall by steam, all the operations of the farm would be easy, and would greatly diminish manual and horse labor.

I would not place such a machine in the hands of my ignorant people, and of course have no intention of purchasing one. This article is written to draw the attention of the Farmers to the subject, and in the hope that some experienced man will engage in the enterprise. WM. CARMICHAEL.

Queen Anne's Co., E. S., Md., July 13, 1847.

The notice of the article alluded to by Mr. Carmichael, was taken from an exchange paper, and we copied it as found therein. In regard to the steam engine, we referred the matter to Mr. Benson, a machinist of this city, who has just made a very important improvement on the steam engine, by which the cost is very considerably reduced—he informed us, that the difficulty in furnishing a supply of water for the engine would be a great obstacle in the way of its successful introduction for the purposes of agriculture. He promised us some remarks upon the subject, for this No. of the "Farmer," but we have reason to believe he has been prevented from attending to it, by sickness.

DUTCH HUSBANDRY.

The foundation upon which the agriculture of Belgium rests, is the cultivation of clover, which seems indigenous, since none of the most ancient records notice its introduction, but speak of it as familiarly as of hay or oats. It is probably from this country, that the plant in question has been, though but recently, slowly, and hitherto, only partially introduced among the farmers of Germany, France, and Great Britain. The clover in Flanders is sown in every sort of grain, in wheat, rye and winter barley, in the spring of the year, when the blades of

those plants have acquired a growth of three or four inches; and with oats and summer barley at the same time with those seeds. It is also often sown with flax; and in general the crops grown between those plants are more luxuriant than when sown with the cerealia. It frequently happens, when sown with flax, that clover yields a heavy crop a few months after it is sown; two still more abundant crops the next year, and sometimes even three;—and if, as it occasionally happens, it be suffered to stand another year, it will yield one heavy crop, and afterwards good pasture for cattle, till it is ploughed up to receive the seed of wheat, which usually follows it.—The original strength of the plants which yield such abundant nourishment, is undoubtedly due to the care taken in pulverizing the soil by frequent ploughings and harrowings, to the careful extirpation of all weeds, and to the copious stores of manure laid on the ground, and its complete amalgamation with the soil; but the successive harvests which the plants yield are attributed, and with apparent probability, to the top-dressings which are bestowed upon them. The top-dressings administered to the young clover consist either of rotten yard dung, lime, pigeons' dung, coal, or native turf ashes, and are laid on as soon as the plants begin to extend themselves over the ground. Sometimes the plants are refreshed with liquid manure.

These manures, though administered to the clovers, as far as they can be obtained, are found far inferior in powers of fertility to that substance which is most generally used, and the effects of which, form the theme of the praises bestowed by all who have witnessed the Belgian husbandry. The turf ashes of Holland are sown by the hand on the clovers, in quantities varying from eighteen to twenty bushels to the English acre.

This small quantity produces a most surprising and almost magical effect. Within a few weeks after it is sown, a field where none, or but slight straggling plants were to be seen, becomes covered with a most abundant herbage. The parts of a field sown with these ashes, at the first mowing, show their efficacy in a most striking manner; the clover being frequently a foot higher on such parts, than on those where its sowing had been omitted. These ashes are found superior in efficacy to such as are made from the turf commonly used for fuel in Flanders, inasmuch that one-third of the quantity is deemed sufficient to afford a great productiveness.

These ashes are brought from Holland by the canals to Brussels, whence they are conveyed by land carriage to the different farms where they are applied. Long practice has so convinced the Flemish farmers of their benefit, that a common proverb in the paterios of the country, may be thus translated:—"He that buys ashes for his clover pays nothing, but he who does it not, pays double." They are frequently fetched from the canal by persons who have to carry them forty, or even fifty miles by land.

The abundance of the clover produced from the soil of Flanders, enables the cultivator to maintain a great number of cattle, principally cows, the dung of which is managed with an attention and care which are highly worthy of imitation, and contributes to maintain in a state of high fertility that soil which yields the most exhausting crops. "The farmers," says the Abbe Mann, "supply the want of straw in the following manner: The peat or sods which are cut from the heath, are placed in the stable and cow-stalls as litter for the cattle. The ground under them is dug to a certain depth, so as to

admit a considerable quantity of these peat sods, and fresh ones are added as the feet of the cattle tread them down into less compass. These compose so many beds of manure, thoroughly impregnated with the urine and dung of the cattle. The mixture produces a compost of excellent quality for fertilizing ground where corn is to be sown.—*Encyclopedia Britannica*.

TO DRAIN PONDS THAT HAVE NO NATURAL OUTLET.—Ponds are often drained by digging pits in their margin deep enough to go through the stratum of clay that the water cannot penetrate. The Rev. Mr. Elliott, of Connecticut, who wrote a century ago on the subject, and gave many useful directions on farming in general, gave instances in which ponds were completely drained into the sandy stratum below the stratum of clay—no other outlet being necessary to convey off the surplus water.

The American Agriculturist for July has the following remarks on the same subject:

"In many parts of the country there exist deep depressions or hollows in the surface of the earth, commonly known under the names of sink-holes, frog-ponds, &c., which are filled a great part of the year with stagnant water, rife with pestilence and disease, and contaminating the air during the summer months, for miles around. These pools, when drained, afford an abundance of muck of the most valuable kind for making composts, or mixing with barn-yard manure; or they may really be converted into rich tillable land. In many places where these holes abound, at some distance below the surface there is a stratum of loose sand, which will freely admit the passage of water; and it is generally found that their bottoms consist of a thin stratum of clay or impervious mud, overlying the sand. In order to drain them, all that is necessary, is, to dig or bore one or more holes in the bottom, till you reach the stratum of sand, when the water will be immediately absorbed and the pond become dry. Several ponds of this description, on Long Island, have lately been drained in this way with perfect success."

THE PIG.—A treatise on the Breed, Management, Feeding and Medical treatment of Swine, with directions for salting pork, and curing bacon and hams, by Wm. Youatt, V. S., author of the "Horse," "Cattle," "Sheep," "The Dog," &c., illustrated with engravings drawn from life, by Wm. Harvey.

This is the title of a work, just published by Lee & Blanchard, Philadelphia. The author's name alone would secure to it an extensive circulation; but from an examination of the work, we are satisfied that not only breeders of the swinish multitude will be pleased with its contents, but the general reader, and particularly the investigator of the animal kingdom will be interested in its perusal—and will wonder that so much can be said in regard to an animal so common as the hog, and to which so little attention is usually paid.

The work can be had of Mr. Hickman, of this city, and also at the bookstore attached to our office.

BLACKBERRY SYRUP.—The following is the recipe for making the famous Blackberry Syrup. No family should be without it; all who try it will find it a sovereign remedy for bowel complaints:

"To two quarts of blackberry juice, add half an

ounce each of powdered nutmeg, cinnamon and allspice, and a quarter of an ounce of powdered cloves. Boil these together to get the strength of the spices, and to preserve the berry juice. While hot, add a pint of fourth proof French brandy, and sweeten with loaf sugar. Give a child two teaspoonsful three times a day, and if the disorder is not checked add to the quantity."

By the following extract from a letter from Ros't. POTTER, Esq., of Fayette, Pa., dated 20th July, it will be seen that the Etrurian has not answered so well in that region:

"The Etrurian wheat you sent me last fall proved rather a failure this season—the exceedingly severe winter killed a large quantity of it, and then the fly attacked it in the spring, which made it not a great deal more than worth a cutting. We have just finished cutting wheat, and some in this section not yet cut. The Etrurian, I doubt, is rather a delicate kind of grain for our climate. Some of my neighbors obtained some from Philadelphia, which was also killed by the winter, which led them to suppose it was a spring wheat. The wheat in this section is very light; grass and oats good, and corn and potatoes have a very fine appearance at present.

"I obtained a small quantity of a variety of smooth white wheat from Mr. Smeltzer, of Frederick county, Md., which he called a Polish wheat, from Upper Canada, which succeeded a great deal better than the Etrurian, which was along-side of it. The Mediterranean wheat is generally the best in this section of the country this harvest."

BITE OF A MAD DOG.

BY W. STOWELL.

Messrs. Editors:—In 1835 a mad dog came among my cattle and bit two of them. I pursued and killed the dog, and on my return home met a neighbor who was also in pursuit of said dog. He informed me how to prevent injury to my cattle—stating that some years before a mad dog had bitten several for him, and he caught some of them and with a knife made an incision in the wound, and then took as much pulverized corrosive sublimate as will lie on the point of a penknife and inserted into the wound. All the hogs thus operated upon lived and did well, while the others run mad and died. This induced me to try the experiment, which I did with success; one of them was bitten in the nostril, where I thought there was no cure, but the application had the desired effect. They were young cattle, but grew finely and were always as healthy as any others in my flock.

One of my neighbors had a cow bitten in the tail by the same dog; he applied some of the corrosive sublimate to the wound, but did not cut so as to let blood freely, and in about three weeks she was taken with the hydrophobia and died.

Newark, Ill., May, 1847.

[Prairie Farmer.

TO PROTECT GRAIN FROM RATS.—An individual of much practical experience informs us that green elder deposited in and about the mows of hay and grain, will prove an effectual preventive against the depredations of mice and rats. These animals are frequently very destructive in their ravages, and if a remedy so simple and easy of attainment is efficacious, it deserves to be known and remembered by all. There is something in the odour of this plant that is as disgusting to their ratships as was the leek to ancient Pistol—they "cannot abide it."

By the following, which we copy from the Patriot of the 19th ult., it will be seen that our friend *Whitman* has had the misfortune to suffer from the devouring element—but we congratulate him on being again ready to supply the demands of his friends with his usual promptness. See his advertisement.

FIRE.—A fire broke out on Saturday night last about nine o'clock, in the *Washington Foundry*, owned by Mr. Joseph A. Gillman, situated in Conway street, near Little Park, and occupied by himself and Mr. E. Whitman, Jr., in the manufacture of agricultural implements, which destroyed the entire establishment, together with most of its valuable contents.—We regret to learn of this loss of our enterprising citizens, especially, as we are told, the loss to Mr. Gillman far exceeds the sum insured, the amount insured to him being \$3000; that of Mr. Whitman \$1000—both at the Spring Garden office. In passing the ruins this morning, we notice that workmen have already commenced on the adjoining lot, occupied by Mr. Whitman, preparatory to erecting new buildings for his business. In connection with his establishment here, we learn that Mr. Whitman is interested in one of similar kind at the north, and from which he will be supplied—so that his business on Light street will not be retarded by this casualty, but will be conducted with his usual ability and accommodation. Two small dwellings adjoining were considerably injured.—The belief is that this property was set on fire.

THE BEST BREEDS OF POULTRY.

BALTIMORE COUNTY, July 24, 1847.
The Editor of the "*American Farmer*," will much oblige several of his subscribers, by informing them which is the best breed of chickens for this latitude; or in other words what breed, on the whole, are the best layers, (in winter as well as in spring and summer), raise the most young, and are the largest and best when dressed for the table.

ANSWER.—We cannot say which breed is the best for this latitude; but will remark, that after a trial of the Bucks county, common Dughill, Bremen, and Game, we made up our mind that the last was the best for us. They are good layers, kind, successful nurses and brave mothers. The laying of hens in winter, depends upon their treatment. If provided with lime, gravel, and occasionally fed with fresh meat, there is no difficulty in making them lay. The meat of the game fowl is as superior to that of any others we have ever eaten, as their indomitable courage is over all others. As to size, though not as large as the overgrown Bucks county and other large varieties, good feeding will make a hen weigh 5 lbs., which used to satisfy us, especially as we looked upon 1 lb. of their delicate fine flavored meat, equal at any time to 2 lbs. of the coarse meat of the more giant kinds.

FLORICULTURAL.

Prepared for the *American Farmer* by S. Féat, Florist.
WORK FOR AUGUST.

Camellias.—Water these carefully and syringe their foliage frequently. Quenching may yet be done.

Dolias.—Stake these as they advance in growth, Chinese *Primroses*, from seed sown as directed last month, may now be potted into small sized pots.

Oxalis, Eran, and other Cape bulbs, will require repotting towards the close of the month.

Cyclamens should now be repotted in fresh soil.

Cactuses.—Water these carefully and sparingly.

Chrysanthemums.—Continue to nip the tops of the young shoots of these, in order to have bushy plants. Budding of *Roses*, &c. may be done now.

Geraniums should be headed down to within a couple of inches of their last year's wood, and be placed in a half shady situation until they begin to grow, when they should be repotted in light rich soil, reducing the balls as much as possible.

Green house Plants.—Report all such as need it, and give them due preparation for their winter quarters.

Mignonette should be sown now for blooming in winter.

Stock Giliaflower Seeds sown now will bloom next Spring.

E. WHITMAN'S AGRICULTURAL WAREHOUSE, 55 LIGHT STREET, Baltimore.—The subscriber has the pleasure to announce to his numerous customers, and to the public generally, that he has on hand and for sale, a well selected assortment of AGRICULTURAL IMPLEMENTS, adapted to the wants of the Farmer. And although his Machine Shop, together with its contents, were destroyed by fire on the night of the 17th inst., he is again prepared to meet the orders of his customers, with usual dispatch, and solicits a continuance of public patronage.

Baltimore, July 27.

E. WHITMAN, Jr.

BALTIMORE MARKET, JULY 28.

Since our last, the advices from Europe, by the steamers, have caused a considerable fluctuation in the flour and grain market—the accounts from the crops in England are favorable for a good yield, and altho' there were some reports of the Potato rot having appeared again in Ireland, yet we believe they were not fully established as true, and were supposed to have been set at rest by speculators—we give the state of the market in this city at this date annexed. **Flour.**—The operations in Howard-street Flour are so limited that it is difficult to arrive at a quotation.—To-day there are sellers of fresh ground parcels from new wheat at \$5 75, and this rate has been obtained for some trifling lots. Fresh ground from old wheat is held at \$5 62, and there are buyers at \$5 50, but we do not hear of sales.—City Mills Flour is held at \$5, but we hear of no transactions. **Grain.**—There is little new Wheat coming to Baltimore, and as it is much wanted limited lots sold to-day at 113a18 cents for red, and 121a17 cents for white. Receipts of Corn very limited. Small sales of white and yellow at 74a75 cts.—A sale of Pennsylvania yellow at 75 cents.—Oats are worth 43a45 cents.—**Provisions.**—We quote Mess Pork at \$16a16 50, and Prime at \$13a14 25.—Mess Beef is held at \$14a15; No. 1 at \$13a13 50, and Prime at \$10a13 50; Potatoes, Mercer, 75a91.—Bacon is in fair request.—Shoulders to a considerable extent have been sold for 7 1-2a7 3-4, and for choice loins 8a8 1-4 cents has been obtained.—Sales of sides are making at 9 1-2a9 3-4 cents, and in some instances 10 cents have been realized for a prime article.—We quote Hams at 10 1-2 cents.—Sales of Hams of superior quality have been made at 11 1-2a12 1-2 cents. **Wheat.**—There is a moderate demand for blue at 25 cents. **Cattle.**—There were 678 head of beefs offered at the scales on Monday, of which 395 were purchased by city butchers; 369 were driven to Philadelphia, and 14 he-d remained over.—Prices ranged from \$2 25a3 25 per 100 lbs on the hoof, equal to \$4 50a6 25 net.—The average rate is \$2 62 gross, being a decline. **Hogs.**—Sales of live Hogs were made to-day at \$5 50a\$6 75. **Rye,** 68a70.—Flaxseed, 12a12 1-2.—Beans, \$1 40.—Cloverseed, \$5.—Lard, 9a9 1-2.—Butter, in kegs, 11a13.—Mackerel, No. 1, \$10 50a11; No. 2, 7 50a8 1-2; No. 3, \$5 87a6.—Coffee, Rio, 7 1-4a7 1-2.—Wood, hickory, \$5; oak, \$4a4 25; pine, \$2 75.—Hay \$20; Molasses, N O 35a37; Cuba 18a23.—Sugar, 5 50a6 75; Porto Rico 6 75a7 75.—Tobacco, Md 32a33 for infer to common; 3a7 50 for good common; 5a9 for good; Ohio, common \$2 45a3 50; good common \$2 75a3; red 4a5; fine wrappery red 15a20; spangled 4a5; yellow 9a13; inspections for the last four weeks. Maryland, 3675 hhd; Ohio, 1641; Kentucky, 123; Missouri, 13; Pennsylvania, 17.—Total, 4531 hhd.

METEOROLOGICAL TABLE, FROM 28TH OF JUNE, TO THE 28TH OF JULY.

Kept at Schellman Hall, near Sykesville, Carroll county.

Taken at 6 o'clock, a. m., 2 o'clock, noon, and at 6 o'clock.

Wind.			Temperature			Remarks.		
28	W	W	W	74	89	79	Clear	Showers Gust 1 in
29	W	NE	NE	70	74	64	Mist	Rain 1 inch
30	N	N	N	61	75	73	Cloudy	
1	S	NE	W	63	75	73	Clear	
2	W	N	SW	67	79	75	Clear	
3	SW	SE	SE	65	79	75	Clear	
4	S	SW	SW	66	84	76	Clear	
5	SW	W	W	65	86	81	Clear	
6	W	W	NE	65	85	78	Clear	
7	W	W	W	67	86	81	Clear	
8	NE	NE	E	68	83	80	Smoky	Cloudy
9	E	E	E	68	74	73	Cloudy	Rain
10	E	E	SE	70	76	73	Rain 1-3-4 in	
11	SE	SE	W	71	73	75	Cloudy	Rain 2 in
12	W	W	W	71	84	78	Cloudy	
13	W	SW	W	76	86	83	Clear	
14	W	W	W	73	86	75	Fog	Clear
15	W	SW	SW	65	78	73	Clear	
16	SW	S	S	63	80	77	Clear	
17	W	W	S	64	85	77	Clear	
18	S	S	S	71	89	85	Fog	Clear
19	SW	SW	SW	73	89	85	Clear	
20	S	S	SW	79	87	75	Clear	Gust 1 in
21	SW	W	W	70	77	75	Cloudy	
22	W	W	W	73	85	75	Clear,	Rain
23	W	W	W	70	83	78	Rain 1-2	Cool, Cloudy
24	SE	SE	E	69	74	78	Rain 1-4	Gust 1-3
25	W	W	W	72	77	76	Clear	Gust 1-2
26	W	W	W	72	77	76	"	Gust 1-2
27	NW	NW	NW	56	69	63	Clear	
28	W	W	W	56	69		"	

Since our last, the advices from Europe, by the steamers, have caused a considerable fluctuation in the flour and grain market—the accounts from the crops in England are favorable for a good yield, and altho' there were some reports of the Potato rot having appeared again in Ireland, yet we believe they were not fully established as true, and were supposed to have been set at rest by speculators—we give the state of the market in this city at this date annexed. **Flour.**—The operations in Howard-street Flour are so limited that it is difficult to arrive at a quotation.—To-day there are sellers of fresh ground parcels from new wheat at \$5 75, and this rate has been obtained for some trifling lots. Fresh ground from old wheat is held at \$5 62, and there are buyers at \$5 50, but we do not hear of sales.—City Mills Flour is held at \$5, but we hear of no transactions. **Grain.**—There is little new Wheat coming to Baltimore, and as it is much wanted limited lots sold to-day at 113a18 cents for red, and 121a17 cents for white. Receipts of Corn very limited. Small sales of white and yellow at 74a75 cts.—A sale of Pennsylvania yellow at 75 cents.—Oats are worth 43a45 cents.—**Provisions.**—We quote Mess Pork at \$16a16 50, and Prime at \$13a14 25.—Mess Beef is held at \$14a15; No. 1 at \$13a13 50, and Prime at \$10a13 50; Potatoes, Mercer, 75a91.—Bacon is in fair request.—Shoulders to a considerable extent have been sold for 7 1-2a7 3-4, and for choice loins 8a8 1-4 cents has been obtained.—Sales of sides are making at 9 1-2a9 3-4 cents, and in some instances 10 cents have been realized for a prime article.—We quote Hams at 10 1-2 cents.—Sales of Hams of superior quality have been made at 11 1-2a12 1-2 cents. **Wheat.**—There is a moderate demand for blue at 25 cents. **Cattle.**—There were 678 head of beefs offered at the scales on Monday, of which 395 were purchased by city butchers; 369 were driven to Philadelphia, and 14 he-d remained over.—Prices ranged from \$2 25a3 25 per 100 lbs on the hoof, equal to \$4 50a6 25 net.—The average rate is \$2 62 gross, being a decline. **Hogs.**—Sales of live Hogs were made to-day at \$5 50a\$6 75. **Rye,** 68a70.—Flaxseed, 12a12 1-2.—Beans, \$1 40.—Cloverseed, \$5.—Lard, 9a9 1-2.—Butter, in kegs, 11a13.—Mackerel, No. 1, \$10 50a11; No. 2, 7 50a8 1-2; No. 3, \$5 87a6.—Coffee, Rio, 7 1-4a7 1-2.—Wood, hickory, \$5; oak, \$4a4 25; pine, \$2 75.—Hay \$20; Molasses, N O 35a37; Cuba 18a23.—Sugar, 5 50a6 75; Porto Rico 6 75a7 75.—Tobacco, Md 32a33 for infer to common; 3a7 50 for good common; 5a9 for good; Ohio, common \$2 45a3 50; good common \$2 75a3; red 4a5; fine wrappery red 15a20; spangled 4a5; yellow 9a13; inspections for the last four weeks. Maryland, 3675 hhd; Ohio, 1641; Kentucky, 123; Missouri, 13; Pennsylvania, 17.—Total, 4531 hhd.

JERUSA
Office of
June 1

AGRICULTURAL IMPLEMENTS—LABOR SAVING MACHINERY.—**GEORGE P. PAGE**, Machinist & Manufacturer, Baltimore. West of Schrader st. Baltimore, is now prepared to supply Agriculturists and all others in want of Agricultural and Labor-saving MACHINERY, with any thing in his line. He can furnish Portable Saw Mills to go by steam, horse or water power; Lumber Wheels; Horse Powers of various sizes, ranging in price from \$85 to \$200, and each simple, strong and powerful. His *Horse Power & Threshing Machine*, he is prepared to supply at the low price of \$125 complete; the Threshing Machines without the horse power, according to size, at \$30, 40, 65 and \$75; Improved Seed and Corn Planter, Portable Tobacco Press; Portable Grist Mills complete, \$12.

NOTICE.

CLAIRMONT NURSERY,
Near Baltimore, Md.

We again take pleasure in notifying our various customers and the public, that the time has nearly arrived for transplanting Trees, &c., and consider our stock of fruit trees superior to what they have ever been before both in quality and in quantity, as we have had an opportunity of testing their correctness from our standard Trees which are extensively bearing.—We deem it unnecessary to enumerate the various kinds of fruit and ornamental Trees, Shrubbery, Roses, Green House plants, Flower roots, &c. &c., suffice it to say our Nursery and Seed Garden occupies about 100 acres of the Farm, and our determination is to give satisfaction if possible, both in price and quality—printed Catalogues, giving our prices, will be sent gratis; where large quantities are wanted considerable discount will be made. Letters addressed to R. Sinclair, Jr. & Co., Light St., Baltimore, or the subscribers, Balto. Md. will meet with prompt attention. Persons wishing to act as Agents will please let us hear from me.

Oct 1 **SINCLAIR & CORSE.**

HUSSEY'S REAPING MACHINE.

Farmers! Be early in sending your orders for Machines to cut your wheat; the time from now to harvest is so short, that any delay may lead to disappointment.

It is now decided beyond a doubt, that where this machine is well known, no other machine for the same purpose can be used without great sacrifice, if at all. Address the patentee as usual.

may 1 **ORED HUSSEY, Baltimore.**

THE SUBSCRIBER takes pleasure in returning thanks to the many gentlemen who have favoured him with their **MILL-WORK**; also to the farmers and planters for their liberal support in the Machine line, and would respectfully inform them, that his endeavors to please will continue unremitting. He is prepared at all times to build any of the following kinds of **MILLS**: Overshot, Pitch Back, Breast, Undershot, Roasting, Steam, Wind, Tide, Horse-power, or Tread Mills; and having the best of workmen employed at pattern and machine making, he can at all times furnish the best articles at the lowest prices, such as Horsepowers, Pettigrew Shellers, Murray's Shellers, 4 kinds hand and power Shellers, portable Mills adapted to any power, Corn and Cob grinders, Straw, Hay and Fodder Cutters, Carry-log and Mill Screws; also manufactures Hoisting Machines, Hoisting Cranes, Pile Drivers, Turning Lathes and Steam Engines; and any kind of Machine, Model or Mill-work built to order. Any kind of Castings and Smith-work at the lowest prices. I warrant all Mills planned and erected by me to operate well.

JAS. MURRAY,
Millwright, York near Light St. Baltimore.

Also for sale, Jas. Murray's patent separating Shellers, which shells and puts the corn in perfect order at the same time, for the mill or for shipping—Persons living near the city can bring with them one or two barrels of corn, and give the sheller a fair trial before purchasing.

He has also for sale, the following second hand Machinery: 2 pair 4 ft 6 in. French Burr Millstones, with all the gearing; 1 pair 3 ft 6 in. French Burr Millstones, with all the gearing; and some Saw Mill work—the whole are good, and any or all of the above will be sold low.

THE SUBSCRIBER offers at **PUBLIC SALE**, on **WEDNESDAY**, the 1st of September next, at his farm (Marsh Mount), near Delaware City, New Castle county, Delaware, *Three fine long-eared Shewing BUCKS*, the get of his imported Oxfordshire Bucks, selected by himself out of the best stock in England in 1845, and out of his best Leicester Ewes. They will be numbered and sold by auction, without reserve, to the highest and best bidder. The sale will commence at 2 o'clock P. M. Terms cash.

The subscriber will be pleased to see any gentleman who may favor him with his company.

Aug. 1

C. B. REYBOLD.

JERUSALEM ARTICHOKES.—A small lot for sale at the Office of the American Farmer—Price 50 cents per peck
June 1

"Spade labour, the perfection of good husbandry."

PULVERIZATION.



DECOMPOSITION.

THE "PREMIUM PLOUGH"—In **PROUTY & MEARS' No. 5 1-2**, "confessedly the best PLOUGH known in this country for beauty of work and pulverizing the soil," we have combined the most perfect swing as well as wheel Plough, connected also with the principles of self-sharpening and centre-draught, which with the facility of turning it into a Tandem 2, 4, or 3 horses abreast Plough in a minute of time, renders it the **NE PLUS ULTRA** of perfection. During the past season it received the first premium for the **BEST PLOUGH**, at Philadelphia; a first, second and third premium at New Castle county, Del.; the Imperial Medal of Russia, of massive gold, value \$300; and at Prince George's society, Md. the highest testimony of approbation, in not permitting it to compete, having already received the first premium as "the **BEST PLOUGH** for general purposes." Their one-horse Plough No. 2 1-2, is strongly recommended for light soils and horticultural purposes, being built after the same model, self sharpening, and carrying a sod furrow 10 in wide with great ease and precision.

In addition to the above, the Premium list of the Prouty & Mears' Centre Draught Plough for the present season, is as follows, viz:

New Castle Co. Del., 6 premiums out of 8, including the first two premiums.

Concord, Mass., 5 premiums out of 8, furrows 10 in. deep.

Philadelphia, 1st premium for the best plough, of the trial.

Tannou, Mass., 5 premiums, including the three first premiums.

Newtown, Bucks Co. Pa., "the best Plough for pulverizing the soil and turning the stubble."

For sale at No. 55 LIGHT ST. Baltimore, Mr. **EZRA WHITMAN** being appointed sole Agent for sales in Baltimore and vicinity.

dec 1

J. S. EASTMAN is resolved on selling out his present stock on hand at very reduced prices and on accommodating terms—those in want of the following named articles will do well to give a call before purchasing, they shall be put at a lower price than an equally good article can be purchased for in this city, viz: 4 four-horse Powers, well made; and 9 superior Threshing Machines; all of which will be sold far below their first cost—Davis' Improved Ploughs, Connecticut Improved Plough, Cleary Self-sharpening Ploughs, N. York No. 12 1-2, and Woods', No. 1 1-2 with cutters and a great variety of other Ploughs, some of the Brag Ploughs—Corn and Tobacco Cultivators, Harrows of various kinds, superior Wheat Fans, his patent Cylindrical Straw Cutters of all sizes, Corn Shellers, two Hoisting Machines for warehouses, one Farm Cart; 2 pair Cart Wheels for farm use, one powerful Tobacco Press, Harness, Swingle Trees, Shovels and Spades, &c.—a great variety of Plough Castings at reduced prices, at Wholesale & Retail. Entrance to his counting room by an alley, through his front building, No. 180 Pratt-st.

N. B.—Steam Power privileges to let for turning Lathes (of which he has several for iron turning to hire with the power) and other machinery.

J. S. E.

June 1.

THRESHING MACHINES, HORSE POWERS, &c.

The Subscribers are manufacturing and offer for sale Gray's Patent Endless Rail way Horse Powers (see fig.) for 1 and 2 Horses. The construction of these Powers is very simple, strong and effectual.

Lever Horse Powers for 2 and capacity sufficient for 6 horses,	\$100
Lever Horse Powers for 2 or 8 horses,	\$150
Threshing Machines,	35, 40, \$60
Separators,	15, \$20
Rice's Fanning Mills,	25, \$30
Watkins' and Rolling Screen Mills	\$25, \$30
Wood & Iron Braised Cradles, with warranted Scythes attached	4, \$5
Grain and Hay Rakes	\$10, \$12
Harvest Tools of every description,	
2 and 3 Furrow Plows for Seeding, Cultivating Corn, &c.	5, 50, \$6.50

Cultivators for Corn and Tobacco. Made with cast iron and steel tires.

"It is proper to remark in regard to this description of Power, that the weight of the Horse is as important as strength, consequently they are of most value to those who work large horses—otherwise the Lever Powers are decidedly preferable and best adapted for the southern counties of Md. and Virginia, where the horses are generally small and light.

R. SINCLAIR, Jr. & Co.

June 1 **Manufacturers & Seedsmen, 63 Light-st.**

GUANO.—Ladies and others wanting small parcels of Guano for their flowers, grass plots, &c. can obtain it at the office of the American Farmer.

June 1

FENCING! FENCING!!—The Farmer, the Gardener, and indeed the Cultivist of whatever name, need no elaborate argument to prove that to protect and secure the products of his soils, by substantial and durable fencing, is second only to his concern in the culture and growth of his crops—or that it is of no less importance in the matter of expense. The attention of the public is invited to a newly invented variety of fencing, which for cheapness, durability, and convenience, is preferable to any fence hitherto used—this fencing is designed and equally applicable for an ornamental enclosure for dwellings, lawns, &c., as for separating and enclosing fields upon a farm. Among the advantages which it possesses, the following are some that might be named: It requires less material; occupies less space upon the ground; is less liable to get out of repair; is more durable than fences in common use. It affords certain protection against all kinds of cattle, sheep, &c.—it combines lightness with strength, it makes very little shade, thus affording light and heat for vegetation; it is portable, and is capable of being transformed at pleasure, to suit any shaped lot, it affords gates at any point and of any size; it can be manufactured from any kind of lumber or such as cannot be split into rails, it is a sure protection for gardens and fields from fowls, dogs, &c.—being too high and pointed to be jumped and too close to admit to admit a passage through—it being light can easily and readily be removed from place to place and set up without injury. It being open is not thrown down or affected by high winds.—In short it is found to be a highly valuable and convenient fence—it is manufactured with great rapidity and facility by very simple machinery worked by water, steam or horse-power. The undersigned having purchased the Patent Right for the State of Maryland, and being desirous that the advantages of this invention should be extensively diffused throughout the State, will sell Rights for the various counties, (except Frederick, Carroll, and Montgomery, these being sold) on very favorable terms, and furnish machinery to those who will purchase and put this valuable invention into actual operation. The machinery can now be seen in operation, either at the Philadelphia Factory, Montgomery county, at the farm of Col. Jas. C. Atlee, New Windsor, Carroll county, or at the farm of the subscriber, Mount Pleasant, Frederick county, as also ample specimens of the fencing itself.—For any farther inquiry, addressed (post paid) will receive attention.

AUG 1

CHESTER COLEMAN.

ETRURIAN SEED WHEAT, raised by Wm. T. Goldsborough, Esq. of Dorchester Co. Md. A lot of this wheat, which looks very promising, will be prepared for seed, and sold by the subscriber, in bags of 2 bushels.

July 1

SAMPL SANDS, 123 Baltimore-st.

A sample of the above wheat can be seen at our store—it is very superior—it is put up in 2 bushel bags, at \$2 a bushel.

CHEAPEST REAL-ESTATE IN KENTUCKY, at \$10,000.

The Subscriber desires to remove south, offers for sale 5000 acres of land adjoining Grayson, the county seat, &c. Carter, 24 miles from the Ohio river, upon little Sandy river embracing his residence, a newly erected commodious brick dwelling, situated upon a beautiful eminence, commanding an extensive view in every direction. His farm of 400 acres of corn, meadow and pasture land under good fencing. The portion not fenced might at trifling expense, be converted into one of the finest sheep walks in the West, being the best latitude for the purpose. His Salt Works known for many years as Little Sandy Saline, with metal and all other necessary fixtures, with an inexhaustible supply of water, which makes the best article sold in the State, with stone coal bank 3 feet in depth, at convenient distances from the water, and a ready market at 33 cts. per bushel. The purchaser would have a monopoly in this branch. Also a newly built mill upon the most approved plan. The country affords a market for all the lumber which can be sawed, and the river during much of the year is navigable for flat boats, rafts, &c. The improvements are worth \$5,000, and the property would yield a rent of \$1,000 per annum. Those desirous of investing safely and profitably cannot desire a finer opportunity than that now offered. Further description deemed unnecessary. Address, post paid, at Grayson, Carter Co. Kentucky.

July 16 m.

WILLIAM G. CARTER.

SMULL & Co.No. 60 PRATT-ST. and EAST FALLS AVENUE,
3 doors west of Pratt-street Bridge.

HAVE FOR SALE, STEAM BOILERS of various sizes, well adapted to Farms, for cooking food or Cattle—as Economy is the order of the day, they can safely recommend them before any other Boiler now in use, for saving of fuel and labor.

They manufacture likewise to order, Cylinder or Portable Boilers, Force and Light Pumps—Copper, Wrought-iron, and Lead Pipes—Brass Cocks, Couplings, and all other apparatus for Steaming purposes.

♣ All orders thankfully received and promptly executed.

Ap 1

PLOUGHS! PLOUGHS!!

The subscriber is manufacturing Ploughs of various patterns and of different sizes; also Wheat Fans, Cylindrical Straw Cutters, Corn and Tobacco Cultivators, CORN SHELLERS, &c. Also,

THRESHING MACHINES and HORSE POWERS—these latter are used by the following gentlemen, to whom reference is made, as to their superior value, viz. Messrs. T. Beard, Th. Beard, Dr. Watkins, J. T. Hodges, T. Welsh, W. Mackall, J. Iglehart, A. Sellman, R. Sellman, W. Hopkins, J. C. Kent, Geo. Wells, Geo. Gale, Dr. Fenwick, A. Franklin, J. C. Weems, of Anne Arundel county; G. W. Woomers, J. T. Barber, R. B. Chew, W. Boswell, Y. Howes, of Calvert co. Md. Agent of Evans Davis, Baltimore co. for sale of the Woodcock Plow. Pennsylvania Grain Cradles. CHAS. H. DEURY,

Gillingham alley, entrance from Howard st. near Pratt mal and store, Hollingsworth st. corner Pratt

LIME—LIME—The subscriber is prepared to furnish for his depot at the City Block, Baltimore, ALUM STONE LIME of the purest description, deliverable at any point on the Chesapeake Bay or its tributaries, at such prices as cannot fail to please.

He is also prepared to furnish superior building Lime at 35c per bushel, in hds., or at \$1 per bbl. E. J. COOPER, City B Baltimore, Md.

**GARDEN SEEDS.**

The subscriber has on hand a general assortment of GARDEN, FLOWER, and HERB SEEDS. Catalogues may be had on application at his store.



SAMUEL SANDS,
123 Baltimore-street.

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